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MARYLAND

DEVOTED TO
AGRICULTURE, HORTICULTURE,



FARMER:

LIVE STOCK
and RURAL ECONOMY.

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No. 12.

Address of the Hon. Geo. B. Loring.

We give some extracts from the able address of the Hon. Geo. B. Loring, U. S. Commissioner of Agriculture, before the American Forestry Congress, St. Paul, Minnesota, August 8th, 1883, and regret our limits do not allow us to publish the whole of this elaborate and eloquent speech.

Dr. Loring commenced by saying:

"When I had the honor of addressing an assembly of those interested in promoting the cultivation and preservation of forests in this country, and in ornamenting our cities and towns by the planting of trees in their parks and along the highways, now a year ago, I dwelt largely on the value and importance of providing in every way for the gratification of our refined tastes and for increasing the popular sense of beauty. I did this as preliminary to the more practical work which called that assembly together, and as an appeal to the strongest motive man has to engage in the business of providing for his wants and surrounding himself with the comforts and luxuries which prosperity secures. At this time I propose to confine myself strictly to the condition of forests in this country, and to such suggestions as may occur to me with regard to their increase, preservation, and economical use.

And first as to the increase of our forests. In this work both nature and art are engaged. The "forests primeval" meet man wherever he advances to the occupation of new lands best adapted to feed and clothe him and best fitted for agricultural labor and production. His primary work is to remove this great vegetable growth, whose condition indicates the quality of the soil he proposes to cultivate. If he

pauses in his work the forests return to their accustomed place. In the older states many acres which half a century ago were used for pasturage or tillage are now covered with forest growths, and many timber lands which have once supplied the forest products are now hastening to supply a new crop. The acreage of woodland is undoubtedly increasing in those sections where farming has become unprofitable, either through exhaustion of the soil or through a change in the locality and demands of the markets. In the strictly lumbering states this is also true. While the deserted, remote, and mountain farms in Massachusetts are rapidly "growing up to wood," the woodlands of Maine and Michigan and many another lumbering state are growing a new crop, which in a quarter of a century will be more valuable than the original growth, although much reduced in size. The young pine and spruce forests of the north, covering acres of land once occupied by their sturdy progenitors, are full of promise and beauty. In other sections of the country, lands, which have for ages been bare of trees while exposed to annual prairie fires, are, under the protection of man, producing rapid growths of wood. As the settler guards his fields against fires and cattle, trees spring up, and especially along the water courses may be seen forest belts where an entire absence of trees had been the law for many generations of men. Wherever the land is protected, therefore, whether it be the location of old forests, or bare spots adapted to tree-growing where forests have been hitherto unknown, nature is busily engaged in producing wood, and in bringing back the forest-growth which welcomes advancing man as he goes on in his work of civilization.

In addition to this natural increase, much

has been done in many of the states in tree-planting, and much more ought to be done. The establishment of "arbor days" and the inducements held out by legislation have operated very favorably on the work of what is called village improvement, and on an agricultural attention to the cultivation of trees as a crop. And this business has increased with very considerable rapidity in some of our best farming states. In Minnesota, for instance, the number of acres planted on "arbor day" in 1878 was 811; in 1882 the number was 1,184; and the whole number of acres increased from 18,029 in 1878, to 38,458 in 1882. Work similar to this is done in Iowa, Nebraska, and Dakota, as well as in Ohio, Michigan, Illinois and Kansas. In Nebraska, the number of acres of cultivated woodland has reached 107,438, as against 19,695 acres of natural increase. These are small beginnings, it is true, but they are entitled to our most careful consideration as the commencement of an enterprise, which, when properly conducted, will undoubtedly constitute an important branch of American agriculture.

Tree-culture ought now to receive our most careful attention. It is time that the skill which has been applied to the cultivation of our great cereal crops, to cotton, rice, tobacco, and all the profitable products of the soil, such as grass and vegetables, and fruits of every description, should be applied also to the growing of wood as a farm product. To the choice of forest trees adapted to each locality; to the selection of land which can most properly be devoted to trees, considering its fitness or unfitness for any other crop on account of quality and situation, whether near to or remote from the farm buildings, whether useful or not for pasturage and tillage; to the best methods of cultivation, whether by seeding or planting from nurseries; to the best method of securing a speedy return—to all these points the attention of practical and investigating farmers should be carefully and systematically turned. The profit of the crop can, I presume, be no longer questioned. Waste lands inclosed and left to nature have produced in wood a very large return for the investment. Why should not land subjected to the well-directed art of the cultivator produce just as good a result? For the purpose of encouraging this enterprise it is

important that Government should lend its aid in every legitimate way until the wood crop is recognized exactly as are the great staple crops of the country. If a bounty is legitimate and useful in any case, it certainly would be in this. The protection against lawless invasion thrown around our grain fields and gardens should also be extended to our woodlands, protection against depredation, wanton fires, and stray cattle. The rifling of a forest should be as penal an offense as the rifling of an orchard. Over forest-covered public lands and over forest plantations, against the careless destruction of the settler on the one, and the trespass of the outlaw on the other, should the strong arm of the law be constantly and vigorously extended.

THE VALUE OF THE INDUSTRY.

In order that I may impress upon you the value of this industry, I will ask your attention to its extent in our country, which covers such a vast area. I do this in order to impress upon your minds not only the value but the great importance of husbanding our resources in this direction in view of the constantly increasing demand for our forest products in all their variety. The forest lands of the United States amount to less than one-fourth of the entire area. The proportion of wooded area is less than in Eastern, Northern, and Central Europe, and is very unequally distributed. Norway has two-thirds of its area wooded, Sweden six-tenths, Russia nearly one-third, and Germany nearly one-fourth. The countries that have less forest areas, arranged in order of proportion, from 18 down to 5 per cent., are Belgium, France, Switzerland, Sardinia, Naples, Holland, Spain, Denmark, Great Britain, and Portugal."

This branch of the discourse is continued at considerable length with lucid statistics which support his views, and from which he concludes that the "Fear of a Timber famine is unfounded." Yet he forcibly urges

PRESERVATION OF FORESTS.

"But notwithstanding this somewhat encouraging view, much remains to be done for the preservation of our forests. The waste by careless cutting, by fires, by settlers clearing the land for agricultural purposes, is enormous." Thus far this has not been checked to any great degree. Local and federal legislation, diffusion of knowl-

edge, the manifest destruction of valuable property have not yet been able to bring the forests within the pale of well protected possessions under the law. Often has the remedy been pronounced by those who have devoted their lives to the study of this industry, and often have laws been passed which seemed to afford a remedy for the existing evil. But still the work of destruction goes on. It now remains, as it seems to me, for the public mind to be brought to a true understanding of the value of the property itself and of the disaster which would attend its destruction. That protection can be secured in the states by associations like this, by practical men engaged in planting trees and preserving their woodlands, by bounties for successful tree-culture, by the distribution broadcast of bulletins and pamphlets, there can be no doubt. On the best method of legislation it is not easy to decide. Bounties based on exemption from taxation have not had the desired effect, the tree-planting having served more as a mode of evading taxation than as a means of developing an industry under the stimulus of protection. And of one county in Iowa it is said "the experience of the board of supervisors justifies them in the opinion that forest culture in our country would advance as rapidly without as with the exemption laws." On the other hand the state auditor declares that: "there can be no question but that this law of our State has greatly stimulated the planting of forest trees and orchards too;" and that "if advantage could be taken of its popularity by inducing planters to set out a better class of trees, such as ash, walnut, &c., more good would thereby be accomplished." Connecticut, Dakota, Nevada, Pennsylvania, Rhode Island, Texas, and other States, have all passed acts encouraging tree-planting, either by bounty or exemption. Encouragement has also been largely offered by agricultural associations in most of the states, and great attention has been given to the proper selection of trees for each locality. The introduction of new varieties of forest-trees has been carefully considered also; and the habits of trees, native and foreign, have been made matters of the most diligent study, both by those who are governed by scientific zeal and those who are engaged in developing a practical industry."

The learned speaker then discusses "the

necessity of preserving and replanting forests," "variety and age" and "meteorological influences," and closes with the following impressive words:

"Some of the states have less than the rule of the Duke of Burgundy requires: "One-third to the hunter, two-thirds to the husbandman." The rule of William Penn, one acre in woods for five acres cleared for agricultural lands, exclusive of the wooded hills and mountain forests, was not materially less. Yet Vermont, Massachusetts, and Connecticut in New England have less than a third of the farm lands in forest; New York, 22 per cent.; New Jersey, 24; Pennsylvania, 29; Delaware, 26; Ohio but 24 per cent.; Michigan, 32; Indiana, 29; Illinois, 16. These are originally wooded States, except a part of Indiana and Illinois.

"The necessity of a careful and accurate cultivation and restoration of our forests is now recognized by all. For three-quarters of a century we have been busily engaged in the business of lumbering; the time has now come when we must turn our attention to the business of forestry. The great wood crop, which nature lavished on our ancestors, has been so diligently gathered that all our ingenuity will be taxed to continue the necessary supply for the growing wants of a rapidly increasing population. It is to this point that this association should especially turn its attention. It is to this point that I have directed the work of the Forestry Division in the United States Department of Agriculture for the development of the forest industry of this country.

Consumption Cured.

An old physician retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung affections, also a positive and radical cure for nervous debility and all nervous complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper. W. A. NOYES, 149 Power Block, Rochester, N. Y.—*

Farm Work for December.

In making suggestions as to work suitable for this month, we are impressed by the fact that the year's labor on the farm is rapidly drawing to a close, and that it is a fit time for the husbandman to review his work of the past year, his hopes and disappointments and the events pleasant or otherwise, which have occurred during this eventful year. He not only can recall his individual experience, but that of his neighbor's and of the whole outside world. It certainly has been a strangely eventful world's history for 1883. The terrible earthquakes, fires and cyclones, and deaths of great men, that have brought ruin and desolation and lamentation to many foreign lands and to portions of our own, have also brought plenty, health and prosperity to nearly all of our wide spread territory, especially so to the Atlantic slope. President Arthur in his Thanksgiving Proclamation for the year thus appropriately condenses the causes we have as a people to render thanks to the Almighty Ruler.

"The prevalence of health, the fulness of the harvests, the stability of peace and order, the growth of fraternal feeling, the spread of intelligence and learning, the continued enjoyment of civil and religious liberty—all these and countless other blessings are cause for reverent rejoicing."

To us who are living in the Middle and Southern States, there are truly great reasons for thankfulness and rejoicing hearts. Let us therefore be thankful for the past and be nerved for further efforts during the coming year in the hope that a beneficent providence may continue to shed like seasons and blessings upon our efforts.

The work on the farm this month is somewhat limited—the weather generally cold and unpleasant yet it is usually a merry month for the farmer, as he must feel in great good humor when he looks at his well-filled barns, stables and store-rooms, and feels that he is prepared for a jolly Christmas. But be sure and not let *procrastination*, delay you in your preparations for full enjoyment of that universal festival. See that the corn crop is all housed, roots have been well secured, tobacco houses tight and well attended to, plentiful supply of fire-wood stored where needed, full supply of material at hand convenient to go into compost heaps, those already made properly watched, turned over and covered up for use next spring. Gather ice when ready and rejoice if you can fill your ice-house before Christmas,

Meadows and Young Clover.

Suffer no stock, except it be a few favorite colts and calves to trespass upon either your meadows or young clover fields.

Mares and Colts.

Shelter and feed brood mares and colts liberally, as everything depends on good keeping the first year of a colt's life.

Calves and Sheep.

These should have shelter where they can resort in bad weather or cold nights. Give the yearlings and calves a feed of grain or meal or oil-cake once a day, and a good feed of roots cut up, once a day.

Shelters.

Have a sufficiency of shelters for all of your stock. They can be easily and cheaply built on most farms, with logs or poles and corn stalks, old straw, pine or cedar brush. We saw once a complete shelter for a mare and colt, made of cedar brush wattled between stakes on the sides, and poles on top, in roof-shape, and then a thick layer of corn stalks. It was built near a straw-rick accessible to the animals. There was a small rack for hay, and a trough for grain, inside the shelter.

Stiff Clay Lands.

All stiff clay lands ought to be plowed this month, and if requiring it, limed. If not limed, spread over each acre one bushel of plaster and four to five bushels of salt, either mixed together or sowed separately. The frost will pulverize the soil more effectually than a harrow would. Do not plow when the land is too wet, and do not have the furrows turned too flat. Leave it in the rough until next Spring when the harrow can be used, then cross-plowed and fertilized and harrowed until in prime order for the crop intended to be grown upon it.

Poultry.

See that the poultry houses are made tight and warm and cleansed. See that they have water, and access to ashes, lime or coarse bone-dust, and be sure to give them chopt fresh meat at least once a week, and your poultry yard will pay you well.

Mutton.

Attend well to such sheep as you design to use or sell as Christmas mutton. Give them a shelter with dry floor, plenty of good hay or corn blade fodder, salt, some roots, and oil-cake if possible, also regularly, morning and evening, about 2 gills of corn, or three of oats, and occasionally a half pint of meal with same quantity of bran or shorts. This is a feed for each sheep. Give them

occasionally some pine or cedar bows to eat, they are very fond of them. They should be kept as quiet as possible to take on fat rapidly, and on no account driven fast, or frightened by dogs, or indiscreet boys. A sportsman with his pointers dashing over a field, will often take off more flesh from your flock than you can restore in a week. They should never be allowed to hunt in a sheep pasture.

Garden Work for December.

But little can be done in the garden this month beyond making compost heaps, trimming and putting in order such small fruits, &c., that were neglected last month. It is supposed that the roots, cabbages, &c., have been all safely stored. And if not already done, spade deeply and well manure the beds for crops in early Spring. *Currants and Gooseberries, and Flowering hardy Shrubs*, of all sorts may be set out this month, unless the ground be frozen or weather forbids.

General employment, for the gardener, at this season, is found in attending his hot-beds, cold frames, securing poles and sticks for vegetable climbers next season, mending and putting tools in order, painting tools and frames and sashes, glazing and repairing old frames and sash, and making new ones. He can also profitably employ some rainy days in making straw mats for the hot and cold beds—making hand glasses, &c.

CORN AND COB MEAL.—The *National Live Stock Journal* believes in grinding corn and cob together and gives these reasons: "The advantage of grinding the cob and corn together is not altogether in the nutriment of the cob, but because the cob being a coarser and a spongy material, gives bulk, and divides and separates the fine meal, so as to allow a free circulation of the gastric juice through the mass in the stomach. Corn meal, when wet with plastic dough, is very solid, and not easily penetrated by any liquid; and when pigs are fed wholly on corn meal, they often suffer with fever in the stomach, because the meal lies there too long undigested."

MEN of all ages who suffer from low spirits, nervous debility and premature decay, may have life, health and vigor renewed by the use of the Marston Bolus treatment, without stomach medication. Consultation free. Send for descriptive treatise. MARSTON REMEDY CO. 46 West 14th Street, N. Y.

N. Y. Agricultural Experiment Station.

Geneva, N. Y., Nov. 3, 1883.

In plats D. 8., D. 9., and D. 10., we designed to study the influence of stolen crops upon the yield of corn, the same amount of fertilizer being used, viz., 400 pounds per acre, while on D. 8. two white beans were planted in each hill, and in D. 10. three pumpkins seeds in every other hill in every other row. As the beans only yielded four pounds, eight ounces of crop, and the pumpkins but twenty-eight pounds of crop, the stolen crops may be considered practically failures, and we will examine the plats and duplicates.

The yield of corn, calculating eighty pounds of ears to the bushel, was as below, per acre, for each plat of one-twentieth of an acre:—

	Sound corn.	Soft corn
D. 8.....	47. 1 bus.	11. 9 bus.
D. 9.....	40. 5 bus.	14. 6 bus.
D. 10.....	29. 8 bus.	22. 5 bus.
Average, ..	39. 1 bus.	16. 3 bus.

We observe here the following variations in yield of sound corn from the average:—

D. 8.—8 bus. or 20 per cent.

D. 9.—1 bus. or 2 per cent.

D. 10.—10 bus. or 25 per cent.

In D. 1., D. 2., D. 5., E. 10. and E. 12. we have designed duplicates. Let us examine these with more care, as the most difficult part of an experiment with plats is the correct interpretation of results. For these twentieths of an acre we have for yield, calculated to the acre, as below:—

	Sound corn	Soft corn.	Total.
D. 1.....	56. 8 bus	9. 8 bus.	66. 6 bus.
D. 2.....	49. 5 bus.	12. 6 bus.	62. 1 bus.
D. 5.....	64. 5 bus.	14. 2 bus	78. 7 bus.
E. 10.....	48. 9 bus	15. 7 bus.	64. 6 bus.
E. 12.....	47. 2 bus	17. 0 bus.	64. 2 bus.
Average, ..	53. 4 bus.	13. 8 bus.	67. 2 bus.

We have here for variations from the average, for the sound corn;

D. 1.—3 bus. or six per cent.

D. 2.—4 bus. or 8 per cent.

D. 5.—11 bus. or 21 per cent.

E. 10.—4 bus. or 8 per cent.

E. 12.—6 bus. or 11 per cent.

Let us now harvest each plat in two halves, and note the variation from the yield of the whole plats, for sound corn.

	Right-hand h'f	Left-hand h'f
D. 1.....	55. 4 bus.	58. 2 bus.
D. 2.....	51. 7 bus.	47. 4 bus.
D. 5.....	65. 2 bus.	63. 8 bus.
E. 10.....	48. 9 bus.	49. 0 bus.
E. 12.....	53. 1 bus.	41. 3 bus.

The difference between the half crops in bushels:

D. 1.— 3 bus. or 5 per cent. of plat yield.

D. 2.— 4 " " 8 " " " " "

D. 5.— 1 " " 1 " " " " "

E. 10.— 0 " " 0 " " " " "

E. 12.—12 " " 25 " " " " "

When we consider that we have no reason to suspect in the spring that the plats varied in their fertility, these figures have this significance: that a difference of crop of 25 per cent. would not *necessarily* interpret the results of treatment upon two adjoining crops. We may also affirm for our plats, that unless there is good reason to the contrary, a difference of yield not exceeding 8 or 10 per cent., should not effect the equivalence between plats which actually harvested different yields of sound corn.

Applying our results to a case in hand, we have for D. 6, a plat to be considered a duplicate of D. 1, 2 and 5, and E. 10 and 12, but on July 2, pig-weed, (*Chenopodium album*) seed sowed broadcast between the rows. D. 6 yielded at the rate of 61.8 bus. of sound corn, and 9.1 bus. of soft corn per acre. The variation between the half plats of D. 5, alongside, was but 1 per cent. of the crop, while that between the halves of the nearest adjoining plat in corn, D. 8., through an omission in harvesting cannot be stated except probably as 8 per cent. The variations between the halves D. 6 is nothing. We hence have plats presumably uniform for comparison.

D. 5. yielded 64. 5 bus. per acre.

D. 6. yielded 61. 8 bus. per acre.

D. 8. yielded 47. 0 bus. per acre.

The average yield for D. 5 and D. 8, is 55. 7 bus. per acre,

Comparing then the yield of D. 6 with the average of the adjoining plats, we have 61. 8 bus. and 55. 7 bus., a difference of 6 bushels, or 10 per cent. in favor of D. 6. We hence are not justified in calling the late weeds an advantage, but we can assume that the late weeds were no disadvantage to the corn.

In contrast we offer the results gained from E. 11., a plat which received no cultivation whatsoever, but the weeds allowed to grow at will during the whole season. Calculated to the acre as before, the yield was 0 bushels of sound corn and 2. 4 bushels of soft corn.

E. LEWIS STURTEVANT, Director.

For the Maryland Farmer.

On the Wing.

MARTHA'S VINEYARD, MASS.

Off the Mass. coast, at the entrance to Buzzard's bay, and beyond the group of Elizabeth islands, is Martha's Vineyard, an island of twenty miles length by twelve in breadth. In surface it is uneven in its northern and western portions, but more nearly level in its southern and eastern. It is largely covered with a dwarfed growth of wood, chiefly oak, which probably gave to a portion of the island the name of Oak Bluffs. The soil is rather sandy and light, but is easily worked and well repays cultivation when the seasons are not too dry. The soil has a reputed poverty, which probably, largely due to the fact that the inhabitants have paid more attention to fishing than to agriculture. With the advantages that naturally come from a near proximity to the ocean's shore, such as vast accumulations of sea manure, it is very probable that the island might be made very productive and attractive for its agricultural value, but at the present time its chief attraction lies in its high esteem as a pleasant and healthy summer resort, an attraction that is now rapidly waning. The island was discovered by Capt. Gosnold in 1602, and is supposed to have received its name partly from the name of the wife of that celebrated navigator and partly because of the great abundance of fruit bearing shrubs and vines. The germ from which has grown Cottage City was a Methodist Camp Meeting first held in 1835, but it was not until many

years later that special attention was turned in this direction and Cottage City proper began to develop. For some time there was nothing more than the Camp meeting grounds, consisting of the auditorium under the shade of the dwarf oaks, and the circles of canvas tents or these erected partly of wood with canvass covering, with the little avenues diverging like the spokes of a wheel. This was some little distance from the shore, but as the spot grew in popularity and public favor, the exceedingly plain tenements of the brethren of the Methodist denomination began to be encircled by those who were attracted thither for bodily refreshment as well as spiritual, and who admired a greater degree of beauty, and so the enlargement has gone on until one would almost suppose that the desire was to excel in style and beauty of architecture rather than anything else.

This city has also been further ornamented by the cultivation of flowers and shrubs which in the summer present an exceedingly pleasing and attractive appearance.

But present appearances indicate that Cottage City has reached the zenith of its glory. It was very rapid in its growth, both in the line of private residences, places of business, and extensive hotels, but the numerous notices of to rent and for sale, together with the very marked decline in number of summer visitors, point unmistakably to a decline of popularity, which undoubtedly is owing very largely to the rapid springing up of other equally as desirable summer resorts, and being largely dependant on the patronage of the summer travelling public, it must in common with all other similar places be subject to public caprice.

Unlike her sister island, Martha's Vineyard, has never made any specialty in agricultural matters of any kind. Nantucket although engaged in the fishing business has made a specialty of and been very successful in sheep raising, and the growing of wool has been a paying undertaking, and the annual return of the season for sheep shearing has been looked forward to with as much interest, anxiety and pleasure, as the annual return of Christmas or Thanksgiving.

Cottage City which at its best in summer was all life and animation must as a

natural sequence become dull and lonely in winter, and as the editor of the local paper aptly put it, the citizens who during the summer had lived upon the visitor must then turn and live upon themselves.

WILLIAM H. YEOMANS.

Columbia, Conn.

Machinery in Farming.

The census brings out with striking distinctness the value of improved machinery and implements as assistants to the farmer in raising crops. Everybody knows that the old, ineffective implements have gone out of fashion; but everybody does not comprehend how much produce one intelligent and expert hand may raise with the aid of effective machines.

There are parts of this country, chiefly in the South, where improved implements are introduced very slowly; indeed, there are vast agricultural districts where the effective modern machinery is never used—and the result is what we might naturally expect—the very smallest product to the hand. In South Carolina there are 294,000 persons engaged in agriculture; there are \$3,000,000 worth of farm machinery and implements used, and the whole farm product of 1879 was \$42,000,000. The value of machinery and implements used was about \$11 per hand, and the product was \$142 per hand. Now compare this with Illinois, where extensive farming with effective machinery is conducted so as to secure the largest possible return. The number of persons engaged in farming is 436,000; value of implements and machinery used, \$33,739,000; whole farm product, \$204,000,000; or \$79 worth of machinery to the hand, and a product of \$468 to the hand. So that with the aid of seven times as much machinery, a man in Illinois makes three times as much product as a man in South Carolina. Kentucky, with 320,000 persons engaged in agriculture, uses \$9,700,000 worth of machinery and implements (\$30 to the hand), and makes a production of \$63,800,000, or \$200 to the hand; while Iowa, which uses three times as much machinery and implements (\$96 to the hand), secures twice as large a product, \$447 to the hand. Alabama uses \$10 worth of machinery and implements to the hand and makes a pro-

duct of \$149 to the hand, while California uses \$115 worth of machinery and implements to the hand, and produces \$817 to the hand. We call Missouri a good farming State, and there are parts of it, certainly, where the most effective methods of agriculture are followed; but we use only \$51 worth of machinery and implements to the hand, and produce only \$270 worth to the hand—figures which are far below those furnished by Illinois and Iowa. Kansas, with only two-thirds as many persons employed in agriculture as Kentucky, makes a product only one-tenth less, because it uses nearly twice as much machinery. As a rule, where the largest amount of machinery and implements are used, there we find the largest product to the hand. The merit of improved machinery is that it enables one man to make twice as large a crop as he could with rude implements—and this is the secret of the marvelous growth of the Northwestern States in wealth.—*St. Louis Republican.*

The Dignity of Farm Life.

No employment of a mere earthly character is so ennobling as that of the farmer. Nothing that he touches but requires mind, culture and capital; muscle is important, but it is the cheapest article ever used on the farm.

It requires muscle to forge the iron and head the rivets of the steam engine, but, that is labor that the thousands could do. The greatest power required in the construction of the engine was the brain power, out of sight to the masses. So on the farm, muscle is necessary, but the engineering, controlling power is mind, however it has been educated or disciplined. Some men are educated by books, some by observation, others by both books and observation. Let not the one despise the other. Books aid observation. He who has become skilled in the products of the soil, or in rearing cattle, poultry or the keeping of bees, as many no doubt have, by their observation, had made unspeakably great progress, and might have stood forth eminent in any given line had he added the combined observation of kindred powerful minds to his own. It is said that the first thousand dollars is the hardest thousand that the millionaire ever accu-

mulated. But the discipline of getting that thousand helped in future accumulations.

You can learn more from books in one year, about keeping bees, poultry or raising stock, from the life-long observations recorded by others than you can gain by your own observation in a score of years.

Farm life opens an abundant field for the student of nature. The laws of animal and vegetable life, the constituents of plants, the chemistry of their growth, their native habits, the wisdom or folly of removal beyond them, irrigation, and the treatment of plants to insure success, require no mean attainments in knowledge.

Breeding, stock growing, feeding of animals, architecture, home decorations, household adornments, coloring, the laws of harmony, all demand knowledge, taste and culture, to make the landscape what God intended—a picture of Eden's beauty.

All other human employments are thrown into the shade when the boundless range of knowledge that may be called into requisition by the farmer are considered. The whole field of nature is open before his inquisitive eye, all the sciences minister to his enjoyments, add to his mental stores, and by enriching his mind advance his wealth in all that makes men truly great, and noble—true usefulness.

God placed the first happy pair, with capacities, and knowledge far in advance of the most advanced of their degenerate descendants, not in a factory or mint to coin dollars, dimes or eagles, but in a garden or on a farm to dress and to keep it, as the most ennobling and exalted occupation that infinite wisdom could devise for the new created, where their faculties could have the fullest play and their knowledge be best employed. So all the animals and probably plants, were named by Adam; and, whatsoever, he with an intimate knowledge of its nature, qualities and habits, Adam called it, that was the name thereof.—*Practical Farmer.*

Running a Farm.

The impression that "anybody can run a farm" would be a matter for astonishment were it not so commonly met with. The writer of this at one time had some connection with a State institution belonging to which was a farm of some hundreds of acres, carrying a large quantity of stock.

In case of a proposed or expected change of farmers some of the applications for the position were as astounding as amusing. Men who had never been able to make a living for themselves; men who had filled some low position in towns; men who could not read or write; men whose only claim to knowledge of farming was that they had lived on a farm when boys; idle, drunken scamps; street loafers—literally all these counted themselves abundantly qualified to take charge of \$50,000 worth of property and successfully manage it. It has usually been easy to make a living on American farms, but we fully believe there is no legitimate business which requires more ability and sound judgment than does farming, if the highest success is to be secured. Mr. Gladstone not long since said in effect that it required more skill and good judgment to manage a farm employing a given amount of capital than to manage a manufacturing or mercantile business with equal capital. He was referring to England, but the statement is not far from correct in America. We need hardly say that no line of farming more decidedly calls for intelligence, sound judgment, business knowledge and capacity, than does the caring for and management of improved stock.—*Breeder's Gazette*.

GLASS:—It is said that glass is gradually beginning to take the place of wood and iron in the construction of bridges in England. The inventor makes blocks of glass, which he hardens by a special process. In solidity it is said to leave nothing to be desired. The experiments already made have given surprising results, and the cost is below that of bridges of wood or iron. Moreover, the glass cannot be injured by insects like wood, nor rusted like iron.

—According to the *Scientific American*, Prof. Sir William Thomson is led by a consideration of the necessary order of cooling and consolidation of the earth, to infer that the interior of our world is not, as commonly supposed, all liquid or gaseous matter, with a thin solid crust of from thirty to one hundred miles thick, but that it is on the whole more rigid than a continuous solid globe of glass of the same diameter, and probably more rigid than such a globe of steel.

Agricultural Clippings.

KILLING CUT WORMS IN TOBACCO FIELDS.—A writer in the *New England Homestead*, finding that the cut worms destroyed his tobacco plants as fast as he set them, procured a basketful of chestnut leaves which were young and tender, and, after steeping them in water which contained one tablespoonful of Paris green to each gallon of water, he placed a leaf over the spot where the plants were to be set. The worms ate holes in the leaves and lay in clusters dead, or so stupid that they did no further harm to the plants which were afterwards set out, and a fine crop was harvested.

ACCORDING to the census report, Illinois pays out more money for fences than any other State in the Union. Pennsylvania comes next. There are in the United States 6,000,000 miles of fence, and it has in all cost something over \$2,000,000. During the census year alone, \$78,629,000 were expended for fencing purposes.

UNDER-DRAINING makes the soil more porous. When there is too much water on the surface, or from springs underneath, the drains carry off the surplus. When the surface of well-drained soil is dry and hot, capillary attraction will bring up moisture from below, and the soil will suffer less from drought than that which is less porous.

AN iron-toothed rake will kill more weeds in a garden in an hour than a hoe can kill in three hours if both were used when the weeds are showing their green leaves above the surface, and more than the hoe could kill in a whole day, ten days later. Such a rake will run over corn, peas potatoes, onions, carrots and beets, until they are two or three inches high, without injury except to the weeds.

CAREFUL experiments have proved that corn which is hilled will blow down more readily than that which has level culture. This can be accounted for by the fact that corn roots run very near the surface, and when hills are made, they are confined to the small space covered by the hill, while in level culture the roots run from one row to the other, thus enabling the corn to stand strong, as nature intended, and in no way liable to be blown down except by winds of unusual violence.

LIME acts upon and greatly aids the decomposition of organic matter in the soil. It is thought to neutralize the organic acids contained in what are called "sour soils." It also acts upon the inorganic or mineral constituents of the soil, and aids in converting them into forms in which they can be taken up by the plants, especially in liberating potash from its combinations.

AN enterprising farmer is out with this recipe to make posts last—not quite forever—but a great many years: "Take boiled linseed oil and stir in pulverized coal to the consistency of paint. Put a coat of this over the timber, and there is not a man that will live to see it rot." Try it, farmers; it won't do any hurt, and may do good. We think it will.

Farmers Guide.

BOARD MEASURE.—To ascertain the contents, (board measure,) of boards scantling and plank:

Rule.—Multiply the breadth in inches by the thickness in inches, and that by the length in feet, and divide the product by 12, and the quotient will be the contents.

WOOD MEASURE.—To ascertain the contents or number of cords in a given pile of wood:

Rule.—Multiply the length by the width, and that product by the height, which will give you the number of cubic feet; divide that product by 128, and the quotient will be the number of cords.

A pile of wood 4 feet wide and 4 feet high and 8 feet long contains one cord.

LAND MEASURE.

9 Square feet.....	1 yard.
30½ Yards.....	1 pole.
40 Poles.....	1 rood.
4 Roods.....	1 acre.
1760 Yards.....	1 mile.

—1800—From Beatty's Organ Factory, Washington, New Jersey, During October, 1883. The above figures indicate that during the month of October 1883, one thousand eight hundred (1,800) Beatty's Organs, Church, Chapel, Parlor and Pipe, were manufactured and shipped to all parts of civilization. In addition to this great output, 1,800 organ benches were built and 1,800 organ boxes manufactured on the premises. This does not include shipments of BEATTY'S PIANOFORTES. This, I believe, exceeds the output of any two of the largest organ makers in the world combined.

HORTICULTURAL.

"THE MEETING of the *American Pomological Society*, in Philadelphia, in September, proved of much interest to fruit-growers and horticulturists generally. The venerable President of the Society, MARSHALL P. WILDER, on account of "a recent disability," as he wrote, was not present. He, however, wrote an address which was read before the Society. His notice of members lately deceased was quite full and touching. "During the interval since our last session, we have sustained greater losses of official and prominent associates than in any former-like period in the history of our society. In my former addresses I have endeavored to place in our records a reference to those actually engaged in promoting the objects of this Society, and now I have the melancholy duty of adding to that starred roll of worthy men, the names of James Vick, Bryant, Schley, Pearcey, Arnold, Johnson, Hooker, Transou and Warder. In this we number seven Vice-Presidents, a Treasurer, Secretary and a member of our Fruit Committee." A particular notice of each of these former members is then given and lastly of Henry B. Ellwanger, of whom, among other remarks, he says, "Mr. Ellwanger had been a constant attendant at our sessions for many years, and is well remembered as reporting, at our last meeting, for his father, then in Europe, on foreign fruits. How mysterious is this Providence! It is only six weeks since he was sitting by my side and expressing the great interest which he felt in the hybridization of the Rose, and his hope that, although we may not be able to paint the Lily, we may yet "add perfume to the Rose." Of all, he remarked: "These, and other friends have gone before us to that better land, where, we trust, they are now partaking of fruits from the tree of life, that perish not with their use."

The fruit display was very fine. One firm from Jenkintown, Pa., exhibited two hundred varieties of Pears, and thirty of Peaches. The Minnesota Horticultural Society sent in one hundred and forty plates of Apples and thirty of Grapes. This collection of Apples was particularly noticeable, for the high color of the specimens. The Wealthy Apple, a Minnesota seedling, stood at the head of the collection. Other

States were well represented by fruit collections. The new varieties of Grapes of A. J. Caywood and J. H. Ricketts, of this State, were greatly admired. Ellwanger & Barry made a grand display of Plums. A specimen of *Victoria Regia*, the great Amazon Water Lily, was exhibited in a tank, by E. D. Sturtevant, of Bordentown, N. J.

The next meeting is to be held in the Fall of 1885, at Grand Rapids, Mich.

[The above well condensed notice is taken from the November number of "Vick's Monthly," which is certainly the most beautiful floral paper published in the world. It is both beautiful and instructive. The sons have proven themselves worthy of their distinguished sire, whose memory will ever be cherished by every lover of flowers in both hemispheres.—EDS. MD. FAR.]

For the Maryland Farmer.

Quince Culture.

Friend Whitman:—The great success of my continued experience in *quince culture*, leads me once more to write you a few lines. This year I have gathered the first crop of the Champion and Rea's Mammoth, both of which were very fine, though the trees were but four years old. Last year, and again this year, I had fruit on grafts of the Champion, set only the year before bearing. Trees of the apple-shaped orange, side by side with the Pear-shaped orange, and treated the same, are decidedly inferior in vigor of growth, and of earliness in bearing. The venerable Charles Downing, thinks my pear-shaped orange is a new variety, much superior to the old pear-shaped quince, with which he has long been familiar. He ordered trees last Spring, and this Fall's fruit of the leading varieties, which I was pleased to send to so eminent an authority on fruit. General Carze, now in Vineland on behalf of the Department of Agriculture is delighted with my pear-shaped orange beyond all other varieties I have in cultivation, and wants to send samples to the Department.

The American Agriculturist is so much pleased with my contributions on this culture, it publishes my name in the list of its

distinguished contributors. Such papers as the N. Y. Tribune and Observer, Germantown Telegraph, and Philadelphia Weekly Press, New England Farmer, New England Homestead, and Vineland Weekly Independent, seek my contributions on this subject, and others copy articles. So you see I am making myself a benefactor of mankind by my study and experiments. And besides all that I have published, I am having occasion to answer many letters of inquiry from various parts of the country.

My crop has exceeded all past experiences. More visitors have been to see my trees and fruit than any year before. I have sent trees this year to Mass., N. Y., N. J., Ohio, Va., and even Kansas; and now only wait for the close of the growing season to repeat the operation. Since the superiority of my new sort has become known, I am hardly able to keep the supply up to the demand. The poorest fruit I had this year, was bought at my farm for \$2.50 a bushel, to sell again, which may give you an idea of its excellence, in a year, when the markets are supplied unusually, well with this fruit. I am sure you will congratulate me on my success, when I tell you that I had a half bushel of the finest fruit on trees only five years old, twelve of the largest made a half peck, and that eight year trees exceeded a bushel. The largest tree had 263 to get ripe on it. The smallest a two-year old tree, matured one very pretty quince. A little tree not much over a foot high, and a tree one year old, had nine blossoms. *More anon.*

From yours truly,

W. W. Meech, Vineland, N. J.

CANNING FRUITS AND VEGETABLES:

Baltimore alone, this season: 14,400,000 cans of peaches, 2,000,000 cans of peas, 300,000 cans of string beans, and 100,000 cans of pears, 3,000,000 cans of tomatoes, 1,000,000 cans of fruits and other vegetables. This is an immense amount for what may be called a new industry. Maryland seems to take the lead of all her Sister States in this growing industry. In the canning of corn, and tomatoes, and oysters, Maryland, seems determined to soon become mistress of the markets of the world.

Hardy Perennial Plants.

By hardy perennials are meant flowering plants, chrysanthemums, phloxes, day lilies and similar sorts, such as we find embellishing many a garden in city and country. There might easily be selected sorts to give, one after the other, flowers from earliest spring to hard freezing weather in winter, and of different heights and growths. There are a few sorts that flower the whole season, more or less, though of this class there are not many. Perennials to do well need to be transplanted often, that is every few years, or else the flowers get smaller every season. All, or nearly all, perennial plants admit of dividing and transplanting. This besides increasing their numbers, causes the flowers to be larger and of a better color. The spring is the best time to divide and transplant, doing it very early, as such plants start into growth with the first warm days. But early fall will do almost as well, especially when those to be moved are of the early blooming class. Should the ground be fairly moist in the early part of September, the work could be done. Perennial plants are greatly benefitted by a mulch of some kind during the hot days of summer. Generally they do not root deeply, and if not mulched the heat of the soil is too much for them, and so their growth is unsatisfactory. They are better mulched all the time, as the coolness this affords is just what these plants want. Newly transplanted ones would have to be covered with leaves or some similar material, the first winter, at all events, to prevent the frost heaving them out.

The Dwarf Horse-Chesnut.

It would be very hard to find in the month of July a more beautiful shrub than the dwarf horse chesnut. It is a native shrub, growing in Georgia and South Carolina, and is known botanically as the *Pavia parviflora*. It is quite at home here, and in many old gardens are to be seen specimens of it six feet in height and as many in breadth. The flowers are white and on a long racemous thyrses, similar to the common horse-chesnut. Each thyrses stands erect, usually, and shrubs of the size mentioned above will have a hundred or more on. They do very well in the full sun or in partial shade, Coming into

bloom, as it does after most shrubs have done blooming, it is valuable, and is one of the shrubs which the landscape gardener never overlooks in his plantings. There are some Pavias which grow to be large trees. The value of this one is in its dwarf habit, its time of blooming and its beauty. —Joseph Meehan, in *Germantown Independent*.

A Scarlet Clematis.

Joseph Meehan, Horticultural Editor of the *Germantown Independent*, says:

"Those who have not kept themselves informed regarding clematises, would hardly believe there is such a great variety of this beautiful flower as there is to-day. It is not so many years ago since the sweet scented white and a few of the small flowered purple sorts were about all that were popularly known. Then there came into general cultivation *azurea*, a large flowered light blue sort. This was a great advance on the others, and it gained a standing among clematises which it keeps to a great extent to-day. Later on many improved sorts were revised by English growers, from seeds saved from plants they had hybridised. Among this lot was the one since become famous, the *Jackmanni*, the one with large purple flowers, and of a partly overblooming character. It will be a long while before this is superceded by any kind. There are none yet so good among the hundreds of first-rate sorts now in cultivation. But there is another one which everyone will want, on account of its color, the *coccinea*, a scarlet. It is certainly one of the most desirable kinds ever introduced. It is not one of the large open flowered kinds. The flowers do not expand hardly at all, but remain cone-shaped, like a large bud. It appears to be a very rapid grower and to be free flowered, like many of the new type of clematises are. The color is uncommon in this family of plants, and indeed, we do not now remember a vine of any sort that would represent it in any way. It has yet to be fully tested, but from the few specimens seen, it seems a very promising sort in every way."

Catharrh of the Bladder.

Stinging, irritation, inflammation, all Kidney, and Urinary Complaints, cured by "Buchu-paiba." \$1.

Preserving Fruit.

For the proper keeping of all kinds of preserving fruit a dry and cool closet or cupboard is indispensable; it is also a great importance that the tops of the jars should be made perfectly air-tight. The old-fashioned method of spreading paper dipped in brandy on top of jam or jelly is worse than useless, as the spirit will evaporate and leave the fruit unprotected. The best method of closing is, first to lay over top of jams, &c., a piece of clean tissue or thin writing paper, (which is sold for the purpose), and cut out pieces half an inch larger all around than the top of the jars; well beat up white of egg and a little flour; spread the mixture with a brush over the paper, and place it with the edged side downward over the jars. It will adhere closely to the edges, and need no tying, and the egg and flour will fill the pores of the paper, and render it completely impervious to air. Preserves thus safely fastened down never get mouldy. Fruit for preserving should always be gathered when perfectly dry, and boiled down as soon as possible after gathering; if it remains for any length of time before being preserved, a slight fermentation will take place which will injure the flavor. If the fruit is allowed to become over-ripe, the preserves will become mawkish and diffident in flavor. All unripe, decayed, or otherwise imperfect fruit should be carefully picked out. The boiling should proceed rapidly for a short time; the fruit is neither likely to keep well nor to be of a good color if it is allowed to simmer for a long time. Juicy fruits, such as currants, raspberries, etc., which are now required to be kept whole, are better when allowed to boil for several minutes before the sugar is put into the pan. Fruit which it is desired to keep unbroken should have a little sugar sprinkled over it a few hours previous to boiling, to draw the juice; as this will rarely be sufficient it should have a little juice from other fruit put in with it into the pan; red-currant juice may safely be used for this purpose and it will not spoil the flavor of any other kind of fruit.—*Ex.*

THE orchard products of Florida are reported to have increased from \$60,000 in 1870 to \$1,000,000 the past season. The orange trade had quite a boom last year.

How Pepper Grows.

While at Panang, my gharra driver took me to see a Chinese pepper plantation. Pepper is a very profitable crop. The vine begins to bear in three or four years after the cuttings have been planted, and yields two crops annually for about thirteen years. It is an East Indian plant, rather pretty, but of rambling and untidy growth, a climber, with smooth, soft stems, ten or twelve feet long, and tough, broadly ovate leaves. It is supported as much as hops are. When the berries on a spike begin to turn red they are gathered, as they lose pungency if they are allowed to ripen. They are placed on mats, and are either trodden with the feet or rubbed by the hands to separate them from the spike after which they are cleaned by winnowing. Black pepper consists of such berries wrinkled and blacked in the process of drying, and white pepper of similar berries freed from the skin and the fleshy part of the fruit by being soaked in water and then rubbed.—*Ex.*

NUTMEG.—The nutmeg tree is a beautiful tree, from forty to fifty feet high when full-grown, with shining foliage, somewhat resembling that of the bay, and its fruit looks like a very large nectarine. One fully ripe was gathered. It had opened, and revealed the nutmeg with its dark brown shell shining through its crimson reticulated envelope of mace, the whole lying in a bed of pure white, a beautiful object.—*Ex.*

THE DAIRY.

For the Maryland Farmer.

Butter Balls.

To those of us who live in the dairy region, and are daily witnesses of the changes that are taking place in the methods and customs of dairying, are quite oblivious to the real stride the industry has taken within twenty-five years, in all that appertains to good, butter and cheese. The quiet increase has not been often all more wonderful than the process in the art itself, and iron kettles, log presses, and stone crock churns, have not been so long obsolete, that the memory of man runneth not to the contrary.

While the high-bred, phenominal cow

is demanding exclusive places in the present dairy, it must not be forgotten that it was the common cow without pedigrees, that raised the dairy product of this country from 313,000,000 pounds of butter, and 105,000,000 pounds of cheese in 1850, to one and a fourth-billion pounds of butter, and about 500,000,000 pounds of cheese in 1882, the produce of not less than 12½ million cows.

Within this time the great bulk of butter and cheese is now made at the factory, associated dairying having usurped the more primitive style of kitchen dairying, though the proportion of butter made at the farm is relatively greater than that of cheese for obvious reasons.

Once the few only made good butter and cheese, but the reverse owing to co-operation of its various forms is quite as true. Not but that great quantities of poor butter and cheese are now made, but while excuse was offered, and pardonable under the circumstances, the same conditions do not now exist, and violations of the known best methods, cannot longer be excused.

It is believed that the common dairy stock will not be pushed off the "stool," but will be used on which to build up better breeds by judicious crossing with thorough-bred milking strains. There is a vigor, constitutional stamina, and hardiness about the native American cow, that admirably fits her for the semi-rough and tumble life that the cow is subjected to in great herds, and if uniform milking qualities can be engrafted upon this stock, the future dairy cow of this country will have been found. There is one peculiarity that attends the production of the late phenomenal dairy cow, the yield is largely artificial, *i.e.* is forced. In the past the native cow fed exclusively upon grass, and hay, with a few nubbins of corn and found her stable in the corner of a fence, or the woods, hardy vigorous stock, that refused nothing in the form of food and digested it all. The modern cow is delicately bred, and is in popular parlance, "wined and dined," fed on the richest of grasses, and the most concentrated of foods. This cow reverses the order, and instead of getting her own living, and turning her owner a profit, the owner is compelled to gather her living for her, and get his profit out of a yield secured by a system of feeding extra to anything the native cow ever had granted to

her. This transfers the business of dairying from an occupation, to a science, and the question to be solved is whether the average dairyman is going to work into this new system, and so govern his affairs, that he can make dairying as profitable by a change, as by continuing his present course and grade up his native herds?

Who said it? Who can stand up and say if butter was all gilt-edged, and cheese all full stock, the most of it would be unsold? The finer the grade of the foods the greater the demand and since the butter has been largely made at creameries and hence become more uniform, the greater has been the demand. The demand for good butter within the past four years has been largely in excess of the increase of population, and as a purpose we are eating nearly 3 pounds per capita annually in this country, more than two years ago. The present consumption of our 45 million butter-eating population is or nearly quite 28 pounds per each person, annually. The more uniform, and high the quality, the more attraction the form and appearance, the greater the demand, as a study into the supply and demand of the butter market, will show. J G.

Test of Oenone 8614.

She had previously given Major Brown a test of 14 pounds on four quarts of meal with a four months old calf, and after having been in quarantine for three months; having made such a fair showing under such unfavorable circumstances, Mr. Gardener, who now owns her, decided to give her another chance. She came in on the 15th of last August, dropping a bull-calf to Toltec 6861. She gave during the week 185½ pounds of milk, which made 15 pounds 14 ounces of unsalted butter; her feed during the seven days of her test was daily 4 qts. of corn meal and 4 quarts of ground oats mixed with 2 buckets of cut sheaf oats; this was divided into two feeds and given morning and evening, when the cow was milked. Oenone is one of the fourteen daughters of the celebrated bull Signal 1170. Eight of these daughters have been tested, and all of them have records of 14 pounds and over, and two out of the eight have 21 pounds and over in seven days. Oenone weighs 775 pounds, is a solid light squirrel grey, and quite handsome.—*Spirit of the Farm, Nashville, Tenn.*

Unprofitable Cows in the Dairy.

November is a good month to weed out the dairy. The season for grazing is nearly or quite over, and the season for more costly food is at hand, when it will not pay to keep animals from which small returns only can be expected. The poor milkers and the old cows should now go. One good cow is worth two poor ones, and it costs no more to winter one than the other. It will not pay to winter two cows for the proceeds which one might give. All the profit in dairying comes from the good cows, and a discreet dairyman will keep no other. Poor cows will, by purchase or by raising, occasionally work into almost every herd, but a prudent man will not allow them to remain long after they have been proved and found wanting. Nor is it economy to wait long for an opportunity to dispose of them advantageously. By consuming the food which better animals might use at a profit, they will soon cancel any advantage which might come from keeping them for a favorable sale. It would generally be better to sell at once for what they would bring, than to keep them at a continual loss.—*National Live-Stock Journal, Chicago.*

SCOURS in calves is always a result of indigestion. In nearly every case overfeeding produces this result. Generally the removal of a cause will remedy the bad effect, unless the injury has gone so far as to infect the blood and inflame the digestive organs. But even then nature will heal its own wrongs if let alone, merely, that is to give the injured organs a rest. Stop all food, unless the young creature has been reduced to a low condition of weakness, when some gentle support and soothing remedy for the inflamed intestines should be given. Gum water, starch well boiled, linseed tea, with some sugar dissolved in either, will be very useful, but only small quantities may be given; the soothing effect upon the bowels is the most useful result, and half a pint at once given every three hours will be sufficient. We have found that new milk given warm from the cow, half a pint at a time, and no more, will relieve the diarrhœa, and if continued for three or four days will restore the calf, when the usual warmed, skim milk, sweetened with some sugar or molasses will again be taken safely.—*The Dairy.*

Feeding Cows and Horses.

The old practice of feeding cows every three hours, giving the last feed just before retiring at night, has been very generally abandoned. Now the most successful farmers feed only morning and night. The whole morning or evening feed is not put before them at one time, because experience has taught that it is best to put before a cow a small quantity at one time, adding more as soon as it is eaten up, so that the morning and evening meals are made up of several small feeds, perhaps of different materials. Some farmers, who have tried this method of feeding cows finding it better than the old way, without considering the fact that the horse and cow are entirely different in their physical structure, decide to feed their horses in the same way; but this is wrong, for the horse has not an extra stomach to store up food to masticate at leisure, but he has only a small stomach where the food is rapidly formed into material to nourish the system. When fed but twice a day and fed large quantities of hay the coarse food is pushed beyond the position where it can be digested and is thus passed off with but little of its nutriment extracted. It is evident that horses and pigs should be fed oftener than cows and oxen.—*Massachusetts Plow.*

The Jersey Cross for Butter.

The real value of the improved breeds consists in their capacity for improving our common cattle. It is not expected that even all the improved breeds can furnish dairy cows for this country. When our dairies are improved it must be by crossing the purely-bred male upon selected common cows. It appears, sometimes, when we look at the Jersey boom, as though people expected to replace our dairy cows with Jerseys. All that has been done to test the actual capacity of the Jersey for producing butter has been most appropriate, and has given the first definite information of the real value of the Jersey blood. As the male represents half of the herd, a prepotent Jersey male, whose dam and grandam and the dam and grandam of whose sire produced 400 pounds of butter per year, represents the production of at least one ton of extra butter per year only three years ahead, and then may represent another extra ton of butter the next year,

and an additional ton each preceeding year up to six or even eight years old.

This view represents the basis of the real value of such prepotent butter-blood in the Jersey male. That the reader may not misunderstand our meaning, let us say that at one year old this male may get twenty heifer calves upon common cows whose butter does not average over 150 pounds. Now this male will add to the butter production of his calves over the production of the dams at least 100 pounds, so that twenty such half-bloods would produce one ton of extra butter. This male might produce the same number of half-blood heifers each year for six years. This would be crediting the male with the production of six tons of butter at the end of his term. It is easy to see the immense value of such a male. One thousand dollars would be a very low figure.—*National Live-Stock Journal, Chicago.*

What it Costs to Feed a Cow.

The cost of feeding a cow is an element of some interest in the dairy. There are many dairy farms upon which some selling crops are grown, and feed is purchased with the money. At times this is a profitable operation. When crops can be grown that will sell for \$100 up to several hundred dollars per acre, it is far more profitable to raise these and buy feed for the cows, if only the manure is left as a profit. There are many districts, where dairying is an established and profitable business, in which manure is worth \$3 a ton. So that the keeping of cows upon purchased food, and the growing of market crops, hops, small fruits, tobacco, and other special products, may be combined conveniently and profitably. In these cases the cows will be kept partly or wholly upon soiling. Then the question arises: What does it cost to keep a cow?

A cow of moderate size, as a Jersey, Ayrshire, Devon, or ordinary native, will consume from 20 to 25 pounds of fodder and feed daily; the fodder being less in amount as the feed is increased. And here an important point comes up, for sometimes feed can be purchased as cheap as fodder. Bran and corn meal are at times as cheap as hay. And generally the difference in this respect is so small that it always pays

to use hay or fodder only in such an amount as will affect the perfect digestion of the finer food. The writer uses a regular ration of 10 pounds of fodder and 10 pounds of meal daily, and this has been found in several years' practice the best for the production of milk and the condition of the cow. Then such a ration will cost from 15 to 25 cents daily, equal to $1\frac{1}{2}$ to $2\frac{1}{2}$ cents a quart for 10 quarts of milk, or 15 to 25 cents per pound of butter.

Many useful considerations occur from this fact. How many cows fail to pay for what they eat? How many farmers could better afford to give away their cows and sell the feed and grain they consume? How many farmers might make a good profit by feeding some meal instead of hay, and so increasing the product of milk? How much more profitable it is to keep a good cow than a poor one? How—but space would fail to follow up this questioning to the end, and we leave the rest for our readers to cogitate over,—*The Dairy.*

POULTRY HOUSE.

POULTRY BY WEIGHT.—That excellent journal, *The Spirit of the Farm*, has a sensible correspondent who desires that poultry should be sold by weight like other meats, when disposed of to the huckster. It is only fair. When the experienced buyer goes on a farm, he offers so much a head for different classes of poultry offered. If the farmer or his wife are inexperienced, likely to be so, the offer is taken, at so much a head. He takes the lot to town and sells by *weight* and makes a bonanza in a small way. Country poultry raisers, look to this in future and study your interests.

Curious Classes of Articles Imported, Among which are Eggs, &c.

In a remarkable "Special from Washington, to the Baltimore *American*, we find the following which is startling and much to the shame of our people who profess to be enterprising and to have the capacity and will, to supply not only our own home

wants but those of the 'rest of mankind.' Read the following statistical facts and blush ye yeomanry of the United States:

"The fact that 330,000 eggs formed a part of the cargo of the steamer *Hermdel*, which took fire the other day on its way to this country from Copenhagen, suggests some observations regarding a curious class of articles imported into this country. It certainly seems a little odd that the United States, with its large agricultural population, should have to go to Copenhagen, or, indeed, to any point outside this country for eggs; yet a statement recently published by Chief Nimmo, of the Bureau of Statistics of the Treasury, shows that there were imported into this country last year no less than 82,000,000 eggs. More than that, the reports of the past year's importations show that this is not a spasmodic movement of commerce, but that the egg trade from abroad has been a flourishing industry for some years, having grown so rapidly since its inauguration that the hens of the country ought to be startled by it. In the fiscal 1881 the number of eggs imported was 110,000,000; in 1882 it was 140,000,000; in the past year 182,000,000, and in the present year will probably exceed 200,000,000, with a value of three million dollars. Eggs are on the free list. Will not some tariff rooster, seeing that our people pay out three million dollars a year to support the pauper hen labor of Europe, rise in his place in the House next session and propose a tariff on eggs? It is a little curious, too, in this country of free beer, and where millions of dollars are invested in breweries and beer-making appliances, to see that the importations of beer are a million dollars a year. The value of the malt liquors imported at the various ports of this country during the past year was over a million and a-half of dollars. The exportations of wheat were one hundred and twenty million of dollars last year, and yet there were imported during the same year no less than a million dollars worth of wheat and some thousands of barrels of flour. Another curious feature of this report is the fact shown that there were over four million dollars' worth of buttons imported into this country last year, and nearly as many in the preceding year. That which is perhaps most astonishing in this line, however, was referred to in this

correspondence a few days since; that while this country raises cotton for the world, making it her principal export, and while she has the the best machinery, and the best water power of the world for manufacturing purposes, the value of cotton goods imported, in the face of a high tariff, amounts to more than \$36,000,000 per year, while that of wool and woollen articles amount to more than fifty per cent. in excess of that. Of common salt, although we have salt mines, and a tariff to protect them, we import a billion pounds a year—an average of twenty pounds apiece for every man, woman and child in the country. In the past two years there have been over ten million bushels of potatoes imported into this country.

What an Egg will do.

For burns and scalds, nothing is more soothing than the white of an egg, which may be poured over the wound. It is softer as a varnish for a burn than collodion, and being always at hand can be applied immediately. It is also more cooling than the sweet oil and cotton, which was formerly supposed to be the surest application to allay the smarting pain. It is the contact with the air which gives the extreme discomfort experienced from the ordinary accident of this kind, and anything that excludes the air and prevents inflammation is the thing to be at once applied.

The egg is considered one of the best of remedies for dysentery. Beaten up slightly, with or without sugar, and swallowed at a gulp, it tends, by its emollient qualities, to lessen the inflammation of the stomach and intestine, and, by forming a transient coating on these organs, to enable nature to resume her healthful sway over a diseased body. Two, or at most three eggs per day would be all that is required in ordinary cases; and since egg is not merely medicine but food as well, the lighter the diet otherwise, and the quieter the patient is kept the more certain and rapid is the recovery.—*Ex.*

Mother Swan's Worm Syrup.

Infallible, tasteless, harmless, cathartic; for feverishness, restlessness, worms, constipation, 25 cents.

MARYLAND FARMER

A STANDARD MAGAZINE,

DEVOTED TO

Agriculture, Live Stock and Rural Economy.

EZRA WHITMAN, Editor.

COL. W. W. W. BOWIE, Associate Editor,

141 WEST PRATT STREET,

BALTIMORE, MD.

BALTIMORE, DECEMBER 1st, 1883.

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Transient Advertisements payable in advance.

Advertisements to secure insertion in the ensuing month should be sent in by the 20th of the month.

Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors, and suggesting to them to subscribe for it.

Subscribe at once to the Maryland Farmer and get the cream of agricultural knowledge.

DR. BENSON'S Skin Cure consists of internal and external treatment at same time, and it makes the skin white, soft and smooth. It contains no poisonous drugs \$1. at druggists.

To Our Patrons.

For twenty years we have published continuously each month, the MARYLAND FARMER, and it is very gratifying to be able to say that each year it has increased in circulation and we trust in general usefulness, until it to-day, is looked upon as one of the leading Agricultural Journals of the country. What makes it the more gratifying is that this success has been attained by its individual merits, entirely independent of agents to scour the country to obtain subscriptions and advertisements. What such efforts cost others we prefer to put into the intrinsic worth of our Journal, and thus present it to the public notice on its superior merits alone.

As this, the 20th volume expires with this issue, we are sure our old subscribers will see the justice and propriety of renewing their subscriptions for 1884, and in doing so, settle all arrearages, if any, are due to us.

We do hope, as we have no travelling agents, that every old subscriber and every friend of the MARYLAND FARMER, will use his or her influence to obtain for next year as many additional subscribers as possible. To prove our desire to extend agricultural knowledge, at the least possible cost, we will furnish our Monthly Journal next year at the low price of \$1.00 per year, and give to each subscriber who pays before January 1884, a nice premium, of one of either of the the following books:

Kendals Treatise On the Horse

Scribner's Lumber Book.

Scribner's Grain Tables.

Horses, Their Feed and Their Feet. (new).


And to such as will add 50 cents extra to the amount due, we will send a dollar book

"Palliser's Model Homes,"

Such premiums will reduce the price of the "MARYLAND FARMER" to almost nothing,

For our lady subscribers we have, if desired, that admirable treatise:—

*"Every Woman Her Own
Flower Gardener."*

 NOTE.—The three last numbers of the current year will be sent free to each new subscriber before January 1st 1884, if requested.

Our Subscribers, Advertisers and Readers are urgently requested to read and ponder over our Prospectus for the next year, which is found as an accompaniment for this number, which closes the twentieth volume of the MARYLAND FARMER.

**Maryland State Agricultural
Society.**

The State Society held an annual meeting this year on its grounds at Pimlico, near Baltimore city, Md. The weather though clear, was blustering and altogether inauspicious, which in some measure accounted for the poor attendance. It was thought best to have this Fair a mixed or joint meeting, of the Agricultural Society, and the extra-meeting of the Maryland Jockey Club. The latter seemed to be the drawing card, for the racing was fine, equal if not superior in interest to those at the regular meeting of the Club held the week before. If the celebrity of the contestants were not as great, the uncertainty of the issues was greater, and to the unbiased looker on, were of intenser interest.

We confess that the whole exhibition, in which we felt a great degree of sympathy, gave us both pleasure and pain. There were attractions enough to draw a large crowd, and especially when no charge for admittance on the grounds was made. The display of machinery was excellent

and well ordered. The contests of traction engines were exceedingly interesting and instructive.

The display of splendid and high-priced stock was magnificent. No State Fair this year had such a display of high-priced animals of the choicest and most popular breeds of horses, cattle, hogs and sheep, as was to be found on the Pimlico grounds of 1883. It was beyond doubt a grand stock and racing exhibition.

When we say this, we say *all*. Alas! we looked in vain for the products of the farm; for the busy Bee—the silent helper to the enjoyments of sweets at the social board of the farmer and good-liver of the town, and the little ones at home—for the products of the dairy; the work of our mechanics in producing all the best appliances to farm labor, and comforts in the way of gearing, harness, carriages, saddles, &c.; nor did we see that crowd of the feathered tribe so useful and conducive to the comfort of farm life; nor were shepherd dogs to be seen; and we looked in vain for the usual grand appearance of the House-hold Hall where woman in all her glory usually appears, surrounded by her inimitable needle work, pastry, bread, preserves, cordials, wines, catsups, pickles, and canned fruits, &c.

Where was anything shown that was attractive to the simple-notioned house-wife, or country girl? Where was the incentive offered for competition in the products of the farm, to the hard-fisted, practical farmer?

Messrs. Brown, President, Shoemaker, Seth and Watts, Dr. Patterson, W. H. Whitridge, J. W. Garrett, J. E. Phillips, W. H. West, A. J. Banks, C. L. Rogers, F. Von Kapff, E. G. Merryman, J. Tyson, W. F. Johnson, A. M. Fulford, Metcalf and Hicks, of Penn., Judge Stump, and others whom we may have overlooked, were the chief exhibitors of live stock, and they may individually and collectively justly flatter themselves that their several exhibits

were, in the different classes shown, equal to, or superior to, any such offered heretofore at any State Show, and would do credit to themselves at any Fair in this country.

The Druid Hill Park made a splendid exhibit of their renowned South Down Sheep. This nursery of this breed, sends out yearly, at very reasonable prices the choicest males of this famous breed of sheep, that the farmers of Maryland and her sister States may reap the benefit of crossing inferior stock with such fine blood.

We were truly sorry to see so many good things so well provided, by the assiduously polite Officers of this Society, so sparingly enjoyed by the public. There was a feast for 50,000 eyes daily, and yet not 2,000 present any day including dead-heads. The grand stand had not one hundred people in its seats, while the great stock parade took place. Shame be it spoken for Maryland! In the city of Baltimore with 400,000 people, a great State Fair is held and so meager a number attends, that every lover of agricultural pursuits is mortified and chagrined. At the North, 40,000 people present on a single day, and the same at Richmond, in the South, and this too, adjacent to small towns with populations of less than 50,000. Our county Fairs had daily more visitors by not hundreds, but thousands. Why is it?

Mistakes may have been made, but they were honestly made for the supposed benefit of the Association? We attach no fault to the Management, but beg leave to suggest a few blunders in our humble judgment.

In making a State or County Fair successful we think every interest, every class of persons,—the old and young, the rich and poor—should be alike induced by premiums, or attractions of every variety, to become interested and anxious to be present, to see, be seen, or participate in the work going on, either from curiosity or positive interest. A girl's loaf of bread

may attract to the show, a dozen of her companions; the result of a trial of a *new invention* may bring a hundred parties, either friend or foe of the exhibitor to laugh at his discomfiture or triumph over his success. Every class and age of society should be catered to if a society professing to be agricultural, wishes permanent success or ephemeral notoriety. We may revert hereafter to this subject as these hasty views have been expressed in perhaps the too fullness of our heart at the disappointment we felt on seeing so few people at our great State Fair, where such a feast in the stock and mechanical line, had been spread for their enjoyment, with a *free* welcome to all participants. This *free* admission however was not sufficiently known, nor were the attractions sufficiently set forth in posters, hand-bills, and advertisements over the whole country. An advertisement in a few county papers in one State is not enough, the Fair should be blazoned on every mountain top, way station, and in every hole and corner of the surrounding States, if the masses of such territory is to be induced to see for themselves what is offered for exhibit by the advertiser.

TRACTION ENGINES FOR PLOWING :—Mr. Louis McMurray, the extensive canner of Frederick county has purchased a "Peerless" traction engine, and will hereafter do much of his plowing by steam. The capacity of the engine is sufficient to draw seven plows. It is said that an acre can be plowed in this way in about 20 minutes.

We refer our readers to Mr. Meginnis' Advertisement in this number, of his "unfinished Shirts." In addition to what is there stated, we can say of our own personal knowledge that he keeps for sale a full line of Gents Furnishing Goods, of the finest quality, and at reasonable prices,

STRAWBERRY TOMATO OR MEXICAN CHERRY:—Some nice specimens have been handed us by Charles Carroll, Esq., of Howard Co., Md. Mr. Carroll says it makes when ripe a delicious preserve, and we accord in opinion with him having raised it many years ago, but gave it up as it had a tendency to grow out of bounds like weeds. It is a pretty little fruit. In Mexico it grows wild in abundance, and is used to flavor soups when green, and when ripe is sun-conserved and is a nice sweetmeat, resembling tiny figs in appearance. Henderson in his "Hand-book of Plants," says of it: "Physalis, Ground Cherry, Strawberry Tomato, from Physa, a bladder; alluding to the Calyx. This genus is composed principally of weeds. *P. Alkekengi* is the *Strawberry Tomato*, common in cultivated grounds, having been naturalized from Europe." It is well worth cultivation as a curious little plant, and useful as a preserve. The latter quality was fully attested by the tumbler of it presented by Mr. Carroll, and was really delectable to sight and taste, flavored with lemon and ginger, it eat like delicious honey from bees fed on the fragrant herbs of Hymettus.

VIRGINIA STATE FAIR, held at Richmond, beginning 31st October was a grand success. We are glad the farmers of old Virginia are coming to the fore. Thousands attended daily, and everybody was gratified. Among the premiums awarded to our friends of Baltimore, Messrs. E. Whitman, Sons & Co., received for best Corn and Cob Crusher, diploma and \$5. premium; for best hay, straw and fodder cutter for hand, certificate and for best Corn Sheller for hand, certificate.

„Rough on Corns."

Ask for Wells' "Rough on Corns" 15 cents. Quick, complete, permanent cure. Corns, warts, bunions.

MR. EMORY'S SALE.—The second annual sale of high-bred live stock at Poplar Grove, took place on Thursday last. The day was a beautiful one and the stock in excellent condition. The attendance was fair, chiefly by citizens of the vicinity. Bidders were few considering the quality of the stock offered for sale. The gross amount of sales was only \$2,265. It is strange that our people who want high-bred, choice horses and cattle should neglect such opportunities as these, that are offered by enterprising stock breeders. We hope Mr. Emory's third annual sale will be attended more largely by such as want pure-bred animals, and that the prices paid will be more in accord with the actual worth of such fine stock as is to be found on the large domain of Mr. Emory of Queen Anne's county, Md.

THE WORLD'S INDUSTRIAL AND COTTON CENTENNIAL EXPOSITION, at New Orleans, to be opened first Monday in December 1884, and to close 31st May, 1885. This will be no doubt the grandest Exposition the world ever saw, and will be a credit to the new world, evidencing as it will no doubt the grand dimensions and diversities of climate, soil, occupations, &c., of this great republic. We trust to live to participate in this great and laudable enterprise.

AMERICAN POMOLOGICAL SOCIETY.—We have received from Mr. Beal, the Secretary, a printed copy of the rules, and that portion of President Wilder's excellent address referring to the names of Fruits. These rules should be had by every kindred society in America, and the views of President Wilder about naming fruits should be well considered by every fruit-grower in the land.

DEVIL AMONG RATS, annihilates Rats, Mice Roaches, Water Bugs, Mosquitoes, Flies and Vermin, of every kind. Sold at all first-class stores, 10 cents.

THE "BONANZA" POTATOE.—A new variety originated in Wisconsin; medium early, good size and superior quality. We are indebted to the Hon. J. V. L. Findlay, M. C. of Md., for some specimens. We will endeavor to have justice done to them by putting them in proper hands for culture.

AN ENORMOUS EGYPTIAN BEET, weighing 10 pounds, was left at our Office by Gen. E. B. Tyler, ex-post-master, of Baltimore, and grown on his well-managed farm near the city. This popular variety of early beets, usually of small or medium size, it seems can be grown to great size under such skillful culture as is practiced by General Tyler.

A PORTRAIT OF PANSY:—We have received a copy of the beautiful lithographic portrait of Pansy (Mrs. G. R. Alden,) the well-known authoress, who finds time to edit the "*Pansy*,"—tender and pleasant thoughts—a popular historical weekly magazine for young people, published at 75 cents a year, by D. Lothrop & Co., Boston, Mass.

THANKS, to the Park Commissioners for very fine photographs of their splendid Southdown bucks, "Prince of Wales" and "Duke of Edinburgh," imported this year from the Prince of Wales flock, for Druid Hill Park. The ram lambs to be offered for sale next year will be mostly gotten by these superior rams.

ONE of the most valuable herd of Jerseys in the United States is said to be owned by Samuel M. Shoemaker, of Baltimore. It consists of the bull Forget-me-not, which cost when a calf, \$2,150; Princess 2d, cost him \$4,800; Oxford Kate, \$3,850; Queen on the Farm, \$2,000; Khe-dive's Primrose, \$5,150; St. Clementine, \$2,600, and Miss Nuffett and Butterfly, which cost something less.

Publications Received.

FROM Oliver Ditson & Co, 449 and 451 Washington st., Boston, Mass. Seven pieces of Vocal and Instrumental Music.—"*Stray Leaves*," "*When Old Age Comes*," &c. They are worthy the attention of the musical world.

TRICHINÆ, by Dr. W. C. W. Glazier, illustrated with 17 wood cuts, price 25 cents. This is apparently an exhaustive review of this much talked about hog-disease. Those who feel an interest in this matter would do well to get a copy of this little book, for information and treatment &c., concerning this dreaded hog-malady.

SMITSONIAN REPORT FOR 1881. A very valuable book no doubt to the student of nature and to all who deal in or have a taste for the learned *ologies*.

COTTAGE HOUSES FOR COUNTRY AND VILLAGE HOMES —Is the title of a new work, by S. B. Reed, architect, with over 100 illustrations, with complete plans and specifications. To every one about to build either a costly residence or a comfortable cottage home, we feel sure this little book would be a most admirable adviser, and save the inexperienced ten times over its cost, \$1 25. At any rate it will well repay cost and time to read, to all who purpose building. Published by Orange Judd Co., 751 Broadway, N. Y.

WINDOW GARDENING, edited and published by Henry M. Williams, New York. It is beautifully printed and illustrated, and written in the Author's happiest vein. All who have even one window plant should get this nice book and study it as well as read it.

AREA AND PRODUCT OF CEREALS GROWN IN 1879, as returned by the Census of 1880. This abstract from our last Census, has been published by the Agricultural Department of the U. S., and should be possessed and pondered over by every farmer in the country. It is full of most useful statistics, and it was wise in the Department to issue such a compendium for the information of the practical farmers of this country.

THE BEE-KEEPER'S GUIDE, by A. J. Cook, Prot. of Entomology in the Michigan State Agricultural College. This book appears to be a practical, comprehensive work upon this interesting subject. Intended to be a perfect manual of the apiarist, whether an expert, or a beginner. It is profusely illustrated, and every bee-keeper should have a copy, see advertisement in this number of the MD. FAR.

Catalogues Received.

CATALOGUES of Herds of Short-Horn and Aberdeen. Angus Cattle, on Turlington Stock Farm, Turlington, Otoe Co., Neb. It is well illustrated and handsomely printed, compiled and published by "The Breeder's Gazette" of Chicago.

FROM Bush, Son & Meissner, Bushberg, Jefferson Co., Miss. A most excellent Grape Manual and a Catalogue, descriptive of the various Grapes, profusely illustrated. It is really a valuable book of 150 pages that every grape-grower should possess.

Journalistic.

"THE SPIRIT OF THE FARM," Nashville, Tenn. :—This is a new publication, monthly, at \$2.00 per year, and is well printed and ably edited. It bids fair to be soon a leading Journal with agriculturists. We cheerfully bid it God speed.

"THOROUGH-BRED STOCK JOURNAL," is the title of a monthly, published in Philadelphia, Pa. Price \$1.50 per year. We intended to notice long since, but neglected to do so. It is judiciously conducted and the selections are admirable, though we do not hold with its advocacy of a tariff, or any tariff beyond the economical exigences of the government. Its only fault seems to be the advocacy of a protective tariff, which to our minds is inimical to the agricultural interest.

The Breeder's Gazette of Chicago :—

"There have been few more marked successes in journalism than has been achieved by the "Breeders Gazette," of Chicago. Started about two years ago as a twenty four page weekly paper, it has gone on steadily increasing in matter and interest, as well as in size, first to twenty-eight, then to thirty-two, and, finally, to thirty-six pages weekly. As a paper for such farmers as make live-stock breeding, in any of its departments, a leading feature of their business, we do not know where to find its equal. We can heartily recommend it to our patrons as the leading paper of its class in America. It is published at Chicago, by J. H. Sanders & Co; price \$3.00 a year. We can furnish it and our paper together at \$3.25 a year for both. Call at our office and examine it, or send to the publishers for a specimen copy."

DRO LEWIS'S MONTHLY, is certainly one of the most instructive, entertaining and promising candidates for popularity, that we have had lately offered to public patronage. We have heretofore neglected to notice its merits because at this season our columns and time is over-run with agricultural events, that admit of no delay.

And even now we have barely time to express our admiration of the articles it has already given birth to, and our wishes that its success may be equal to its merits thus far developed.

NATIONAL FARM AND FIRESIDE, a large-sized 8 page weekly, published in Baltimore city, at only \$1.00 per annum. We heartily congratulate our neighbor, Mr. Alex. J. Wedderburn, the editor, upon the energy and ability he has displayed in the management of this wide-awake journal, which has steadily improved with its increasing years, and evidences its success by its enlarging dimensions, its brightness and manly sentiments.

HARPER'S MAGAZINE for December is a Christmas Number, with an extraordinary wealth and variety of papers, poems, and pictures, by an array of authors and artists, (American and English) seldom, if ever, brought together before. This will take the place of the mammoth HARPER'S CHRISTMAS of 1882, which will not be repeated this year. The Number has four extra plates, in addition to its usual 160 well-filled pages. The illustrations alone have cost, it is stated, over \$10,000.

LIVE STOCK REGISTER.

Forensic Veterinary Medicine

SO FAR AS IT RELATES TO

"THE EXCLUSION AND SUPPRESSION OF
CONTAGIOUS DISEASES."

A paper read by Dr. Ward, F. R. C. V. S., State V. S., at the Quarterly Meeting of the Maryland Improved Live Stock Breeders Association, at the Carrollton Hotel, Baltimore city, November 14th, 1883.

MR. PRESIDENT AND GENTLEMEN:

Your Secretary sometime ago solicited me to prepare a paper for you at this meeting—I promised I would do so and selected Forensic Medicine for my subject, so far as its bearings went in relation to Veterinary Sanitary Science and Police.

I have however digressed from my course somewhat so that I might bring my subject clearly before you, as it holds a most important bearing on the act you have prepared for the Legislation on Contagious Diseases in Animals, and their Suppression in Maryland.

History tells us that, in all countries the first legislation measures adopted for the

suppression of infectious or contagious diseases, whether among the human family or animal, proved abortive, inoperative or totally inadequate,—half-measures being generally adopted and too much dependence being placed in moral laws.

With this evidence before us, and the sad results which followed the half-measure policy abroad, the executive department of this State must feel that, what action is taken must be of a *thorough* nature, the *expenditure* should be *second* to the *thoroughness*—and it must be held the first expenditure means the commencement of *economy*.

Compulsory laws alone I am fully convinced will ever rid this State of these frequent visitations, for under moral laws we find that, whereas our stock owner, finding his herd infected, is led by a sense of duty to his neighbor, guided by his moral courage, to give immediate notice to the legally constituted authorities, and thus the ravages are checked at the outset—but it is not so with his neighbour, who, as soon as he finds an animal or two infected, sells or trades the remainder at the earliest opportunity, and thus sows the disease broadcast, to the serious damage of his neighbors' stock and others in the vicinities through which these animals may pass in transit.

After serious losses and dearly bought experience the legislatures of these countries to which I refer, realized the fact that, unless measures of the most stringent nature were adopted, the live stock of their countries would be swept away. After millions of money had been wasted, the live stock owners and breeders ruined, or nearly so, and animal food placed out of the reach of the masses, from the high tariff, this dearly bought lesson was taught that, restrictive measure must be fully organized, and that too, under an efficient staff of qualified veterinary inspectors.

The veterinary profession was called to its duty to its country, put to its test of merit, made responsible for itself—and time has proved the result to be of the most happy and satisfactory nature, in so far as those countries are concerned.

Instead of diseased or infected animals being permitted to be driven about or roam at large, driven by the dealers in this class of animals, or shipped to distant parts by rail, the penalty was of such a burdensome

character that the risk was too great for these speculators, and again, the seller was brought under the influence of the risk attending the removal of infected animals from his premises. Thus a healthy check was placed over one of the most baneful causes of extension.

The Act which has just been read, shows itself to be all or nearly all that can be desired, not a whit too severe, if it is to be of any value, provided always that, its measures are faithfully carried out, without equivocation or mental reservation, but, the Act should be enforced in all States, with the strictest regulations for inspection of animals intended for transit to or through other sister States.

There is, I think need for some definite system of cleansing and disinfecting of the Cattle Scale Yards and Pens, and cattle trucks, which, I take it, should be included in the Act, "that it shall be compulsory," for this has been found expedient in Europe.

Of the diseases affecting the Bovines, that most to be dreaded is, Rinderpest or Murrain, which fortunately for this country has no location, but the Bovine Scourge, Pleuro Pneumonia has for several years given great annoyance and heavy losses.

It appears from history that, this disease was first reported in Central Europe, and during the last century created great trouble in Germany, Switzerland and France. In 1802 Prussia was invaded and it spread rapidly to Northern Germany. The first report we have of it in Russia is in 1824; we next find it appeared in Belgium in 1827; then in Holland in 1833, and invading Great Britain in 1841. Finding its way into Sweden in 1847, into Denmark in 1848 and Finland in 1850, reaching South Africa in 1854, at the Cape of Good Hope.

The United States was invaded in 1843. The first outbreak being at Brooklyn in that year, it next developed itself in New Jersey in 1847, and, again in Brooklyn in 1850, and in Boston in 1859, since which time various adjacent States have been visited by outbreaks at different periods up to this present. I mention this, the earliest records of the disease, so that you may follow its geographical distribution to the present time, and I will draw your attention to the fact that, in Hungary, Normandy and Algeria it is almost unknown, and this is attributed to the fact that, there is little or no importation into these coun-

tries, a fact of some importance be it noted, bearing on spontaneous development in this disease.

Pleura Pneumonia Contagiosa is a most subtle specific or contagious disease belonging to the Bovine Race, the invasion of it is most insidious, and its contagium highly potent. The disease is classified as one of the sub-acute or chronic nature, and by contagion alone is the disease disseminated.

Some authorities have asserted that the disease can be developed "de novo," under *certain influences*, but the data needs some clearer rendering to lead the highest authorities to follow them in their views. For these *influences* have been in existence and in operation in this country for centuries and in some regions the disease is unknown. It is an accepted theory that contagious diseases are due to a disease "germ," which is physiologically speaking a true "seed," identical with an *animal* or *vegetable* "germ," and like all living organisms has its development and decay. These germs are not to be taken as a product of disease, their presence producing that disease, characteristic to them. Thus the germ of small-pox poison develops that disease, and the patient by contact introduces the germ poison to his fellow-man—the result being "Small-Pox." The same law obtains with animals and the contagious diseases which affect them. These disease germs being present, as seeds as it were, need only a cause to develop their activity, and finding their way into the animal economy, fructify and those phenomena develop which characterise the particular morbid changes due to the specific germ poison, that is, if we may term the germ a poison which lives; and all living organisms reside side by side with animals.

Now accepting these facts as I have stated them, the spontaneity theory can not be held in tact, for when an outbreak happens these disease germs are there, it would be just as feasible for a field of wheat or barley to develop itself without the seed as for a contagious disease to develop without its seed. Therefore, this being so, we find ourselves possessed of a "Factor" of disease germs, "in an animal infected," is it not plain therefore, that such "Factor" should be isolated, or better still, if the number of animals are few that have been

exposed to the contagion, destroyed, and thus stamp out the disease at once, rather than risk its diffusion. Whilst I speak on this point, I will, with your permission, read an extract of an Essay read before the National Veterinary Association of England, by Professor Walley, of Edinboro', no mean authority on Cattle Pathology and Contagious diseases.

Extract from Essay by Professor Walley, read at the National Veterinary Association of England, in the Theatre of the Society of Arts, London, September, 1883.

"One of the oldest and most important of our bovine scourges is *pleuro pneumonia*, a disease which for many years was allowed to run riot through the country, decimating in some cases over and over again, many of our best herds, and paralysing the energies, and emptying the pockets of stock raisers in every direction. Were all animals so exposed, intended for slaughter, this *greatest flaw in the Act*, would not be of much consequence, but in how many cases are the animals so exposed, store cattle, and into how many different lots may they not be divided, each lot carrying with it the germs of disease, and each lot acting as a separate centre for its dissemination. What ever doubt may exist as to the advisability of immediately slaughtering every animal in a particular herd, amongst which the disease has been introduced, there should be no doubt, no hesitation in enforcing this most radical measure, in the case of animals exposed in the open market. Almost any measure would be preferable to the present system, harassing as it sometimes is; and not only harassing, but often uncertain, as within a few hours or days after the expiry of the period of segregation or quarantine, the disease may again make its appearance, or some member of the herd may have suffered from a masked attack, and become a wholesale and unsuspected disseminator of its germs amongst animals with which it may subsequently associate.

Segregation as carried out in infected places, is often rendered nugatory, or its value materially diminished, by the supineness shown by local authorities, or those acting under their instructions. In the great majority of instances, when an outbreak of *Pleuro pneumonia* is reported, the veterinary surgeon visits the infected place, in order that the regulations may be put in force, and does not return again until summoned by the owner, or until the period of isolation expires; the result of this proceeding is that, harassing regulations have frequently to be enforced for an indefinite period and the infected herd is a standing danger to all in its immediate neighborhood. The fault in these cases does not lie with the Veterinary Inspector; it has its origin in the parsimonious notions and short-sightedness of those who employ him. When segregation alone is trusted to, to prevent the spread of *Pleuro pneumonia*, the visits of the Veterinary Inspector should not be made at longer intervals than one week, and every animal in which symptoms of the disease exist should be removed

for immediate slaughter and suspected animals should be isolated.

I may here say, that, in my opinion, the appointment of non-professional men as inspectors is much to be condemned, and should at once cease.

Inoculation it is thought by some, would, if universally adopted, be the most effectual method of preventing Pleuro pneumonia. Slaughter, not only of the affected, but of every member of the herd, is, in my opinion, the only *weapon* that should be employed in the battle with Pleuro pneumonia. It has over and over again succeeded in arresting the disease in the North of Scotland and other places, and its value has recently been, and is now being proved in the Netherlands, where every other known method of prevention has been tried and found wanting. With slaughter, thorough disinfection should be carried out; not the washy measures that are usually adopted, but radical and sweeping measures, such as, the destruction by fire, or otherwise, of all litter, fodder, and manure, and of all wood work; or scraping the latter, by burning its surface with heated irons, subsequently painting it thoroughly with gas tar, (a disinfectant paint superior to all others,) over which a layer of whitewash can be placed if its odor and its color are objectionable. Walls should be scraped and gas tarred; floors thoroughly washed with boiling water and covered with a layer of quick or gas lime, and mangers and troughs cleansed with hot alkaline wash."

I will just mention that the first stages of this disease may continue for a fortnight or three times that period, and that it is when passing from the first to the second stage that we have the most dangerous influences of the contagion to other animals, for the owner may fail to apprehend the nature of the illness and then it is that other animals become exposed to the influence of the germs.

During the first stage, the affection may at times terminate in recovery or partial recovery, but the altered structure of the affected lung tissue is rarely if ever restored. Convalescence is slow and tardy extending over months, during which period the animal may infect others. It is asserted that the air holds the infective element for a space of 50 to 100 feet, and under advantageous circumstances 2 to 300 feet.

Healthy cattle have been known to contract the disease by being housed wherein affected animals had been 3 or 4 months previously. Hay and fodder from sick quarters convey the infection after a long period and the same applies to pastures, the flesh also is a source, and it is recorded that carcasses improperly buried have infected animals at distance of 50 to 60 feet away from the place of burial.

A word about the idiosyncrasy of animals to take on the disease. It has been found that 15.20 or more per cent., escapes the infection in a given period.

From Prof. William's "Veterinary Medicine." In six cows the following results obtained:

1st Cow	31 days after 1st contact.
2d "	32 " " " "
3rd "	35 " " " "
4th "	35 " " " "
5th "	37 " " " "

In another case after the introduction of 2 sick cows to 10 healthy cows on the 21st November.

1st began to cough on the	26th December.
2d "	" " " " 2d "
3rd "	" " " " 3rd "
4th "	" " " " 7th "
5th "	" " " " 10th "
6th "	" " " " 18th "
7th "	" " " " 28th "

3 remained healthy, 2 of above died.

As to losses, in some instances the death of 15 to 20 per cent. may occur, at others we have 70 per cent. In mild outbreaks we compute the loss from statistics recorded, to be 20 to 25 per cent. and in the severe form, 70 to 80 per cent. In countries where slaughter is carried out the average is 60 per cent.

I think I have now said sufficient to bring the serious nature of this *one* of the several contagious maladies clearly before you and the public, so that it must realise the importance and value of the new Act you desire to make law, and I am sure it will go with you to the Legislature.

Leaving Pleuro-pneumonia, I will now speak on some of the other diseases affecting stock. Tuberculosis, and Texas Fever. Tuberculosis, is a most contagious malady, dangerous alike to the human family, yielding Phthisis or Pulmonary Consumption. —Measures for stamping out this disease are sadly needed.

Texas Fever brings in its wake most serious consequences and every care should be exercised to arrest animals passing through the State supposed to hold this infection.

In the Equine Race, the horse suffers from one of the most malignant, insidious, and dangerous diseases known among animals. Glanders, with its modified form Farcy, which disease is communicable to mankind with the saddest result, death,

and a most agonising one it is, for it has been my misfortune to have more than one brought under my notice in practice.

My attention has been directed to cases in this city, and I was surprised to find I had no power over this disease other than the moral influence I brought to bear. This should not be so, in a country boasting of and possessing the finest horses in the world.

In Europe the laws on this disease are most severe and justly so, imprisonment without a fine for exposing an animal affected.

The contagion of this disease is most potent and insidious, therefore needs strict legislative measures to keep it in check. Your Act covers this disease, and I hope those who may own suspicious horses, will be induced by it to have a qualified opinion thereon, 'ere the law comes into operation.

The following diseases are proscribed under the Animals' Disease Act of Great Britain: Cattle Plague, which means the Rinderpest, Pleuro Pneumonia, Foot and Mouth disease, Sheep Pox, Sheep Scabs, Glanders, or any other disease as the Privy Council may consider infectious or contagious.

Therefore, Tuberculosis is coming under this order, and as I have stated, justly so; then there is the Anthracoid disease of Pigs Erysipilas, commonly called Distemper, Measles, Hay Cholera, Red Soldier, etc., which is supposed to be due to the presence of an Entozoon, Typhoid Fever and Trichinosis.

In conclusion gentlemen, I say a few words anent my Inspectorship and its results since your last meeting. I am gratified to report that no member of this Association has needed my services other than for ordinary cases, and that as far as I have been among your valuable herds, I am satisfied of their excellent health.

With the exception of the recent outbreak, I have only found 5 cases of Lung disease and these were of the Chronic form—and in various parts of the State, I also traced a Chronic case from the Cattle Scales to butcher's slaughter house. I found one animal in a garden belonging to a dairyman living on the city boundary, she was in the last Chronic stage, gradually wasting. I am satisfied that most of the trouble lies with the small dairies near the city, and this, your Act will rectify,

I will mention also that information reached me that the disease existed on one of these dairies, and that on my visit I was refused admission and threatend with dogs if I called again, this is the first and only molestation I have experienced since I took the duty of Inspector.

The present law, if such it may be termed, is utterly useless in the last degree for the suppression of contagious diseases, therefore under it my duties have been rather arduous, and at the same time unsatisfactory to me, because I find I am unable to cope with the details necessary for suppression. From what I have said you can see the fact that, Pleuro Pneumonia has been running riot over the stables since 1843, and here in 1883, exactly forty years—we are now discussing the desirability of introducing some stringent laws for the suppression or extinction of the disease. I trust it will be seen that the present state of things has been going on so long—so that the action you have taken to amend the half-measure law existing, by the introduction of one that will, if properly administered, have the desired effect.

Guarantee laws are very well when the animals are under close observation of the qualified inspector, but when left to the honesty of most people it is most hazardous, indeed it is the most expensive course, for a number of inspectors will be needed to carry out the system in a proper manner, and then it will not be so satisfactory as the more economical one of slaughter, and which I am fully persuaded is the most effectual way to bring about the extinction of this plague in Maryland.

The inspection of the cattle at the Scales is a very unsatisfactory duty, as at present arranged. I do hope to see some improvement here at an early date.

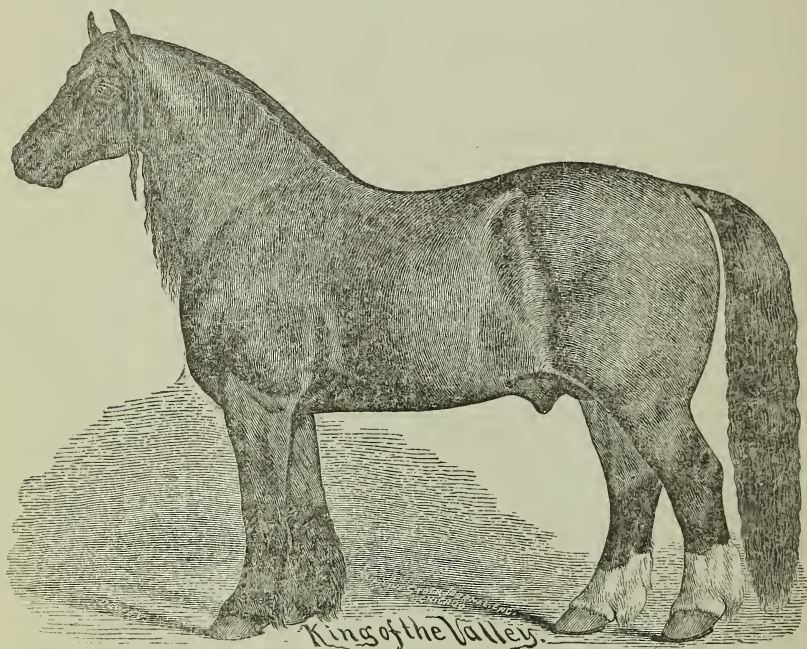
As you are aware gentlemen, there is a Convention to be held at Chicago to-morrow and the day following, instituted by the U. S. board of Agriculture at Washington, to which I have been invited as your representative, by Dr. Salmon, instructed by Dr. Loring the Chief Commissioner, I will read the letter to you. To it I replied stating that, I would bring the matter before the governor and your societies and I have done so. I further said that I should endeavour to be present, and should be ever willing to do my best for the State in the matter under review. I regret to say

that, I am not able to be there, if I could be of any service to the State, but I do hope that some one better able but not more willing has or will be deputed to the duty, for I feel that Maryland should be represented at this Convention.

Whatever may be done by your Legislature, will I trust, place the chief veterinarian in such a position that he may be free from political influences or the vested interests outside his duty, so that he may know that the faithful discharge of his important duties to the State, will render him

Fever, and the management of cows at and after calving, at the January meeting; this will surely draw a full house.—EDS. MD. FAR.]

The cut below represents a fine, imported English draft stallion, of beautiful blue roan color, and possesses good size, form and fine action. He is one of the many superior animals to be found at "Shadeland," the property of Powell Brothers, the large



"KING OF THE VALLEY," owned and imported by Powell Brothers, Shadeland, Springboro, Crawford Co., Pa.

a continued and respected officer; and thus give him zeal in discharge of those duties.

A vote of thanks was accorded the Doctor for his paper, and he thanked those present for bearing with him so long, as it was getting late, and expressed himself ready at all times to introduce papers or lectures to the Association, or to similar Societies, if it was desired—indeed, he said, I am at all times your faithful servant.

[NOTE.—We hear that Dr. Ward has been solicited to give a lecture on Milk

importers and breeders of choice stock. See their advertisement in this number of the FARMER.

"I am truly thankful that I ever used Dr. Benson's Celery and Chamomile Pills, for they cured my periodical headache." Mrs. J. R. Paddison, Point Caswell, N. C. 50 cts. at druggists.

Skinny Men.

"Wells' Health Renewer" restores health and vigor, cures Dyspepsia, Impotence, Sexual Debility. \$1.

LADIES' DEPARTMENT.

Chats with the Ladies for December.

BY PATUXENT PLANTER.

DECEMBER.

"The squirrel has made up his winter bed,
And in it is snugly lying;
The chestnuts have ceased to drop overhead,
The ducks have sailed by with wings outspread,
The clouds are painted in purple and red,
And the autumn in glory is dying.

"Hurrah for the Winter! down from the sky
Comes the snow in a noiseless hurry;
Oh the snow does so much; so quietly!
And the bells they jingle, the sleighs they fly;
The skaters shout when the moon is high;
And the stars look surprised at the flurry.

"Who says that Winter is grim and old?
He's a royal, merry, good fellow!
What games are like his, so gay and bold?
What stories like his were ever told?
His nuts—they are worth their weight in gold;
His apples are choice and mellow.

"Have out the mittens! put up the ball!
See that the mufflers are ready!
Get down the sled from its nail on the wall;
Sharpen the skates for fear of a fall;
The river is froze! will soon be the call!
And then, who will think to be steady!

"Then give him welcome; bid him draw near;
Enwrapped with pine and with holly,
He brings you presents, he brings you good cheer,
'Tis in fun that he slyly nips your ear!
He freezes your nose to make it look queer;
For Winter is good, and is jolly."

THANKSGIVING has just past with its varied enjoyments according to the taste of those who kept it as a fast or holiday—a prayerful or a joyous, carnival day. And now, Christmas is less than four weeks off, to close most happily the year 1883 which has been so generally prosperous and happy to our people.

There is no festival, so deservedly and so universally observed throughout Christendom as the celebration of the anniversary of the natal day of the Saviour of mankind, which occurred 25th of December 1883 years ago, "While shepherds watch'd their flocks by night,
All seated on the ground."

Let us all be prepared to keep it worthily, not riotously, but with thankful merriment; kindly, fraternal, forgiving, joyful feeling. Let charity preside over all our thoughts and acts, at least for the few days this annual holiday prevails. Not over four days out of every 365 does this glorious time come with its lofty sentiments appealing to every civilized head. Let us then join in the grand anthem "WELCOME, MERRY CHRISTMAS," and heartily unite in and practice the sentiments enjoined by the author:

"Be merry all, be merry all,
With holly dress the festive hall,
Prepare the song, the feast, the ball,
To welcome Merry Christmas.

"And oh! remember, gentles gay,
For you who bask in fortune's ray,
The year is all a holiday,—
The poor have only Christmas.

"When you with velvets mantled o'er
Defy December's tempest's roar,
Oh! spare one garment from your store,
To clothe the poor at Christmas.

"When you the costly banquet deal
To guests, who never famine feel,
Oh! spare one morsel from your meal,
To feed the poor at Christmas.

"When generous wine your care controls,
And gives new joy to happiest souls,
Oh! spare one goblet from your bowls,
To cheer the poor at Christmas.

"So shall each note of mirth appear
More sweet to Heaven than praise or prayer.
And Angels, in their carols there,
Shall bless the poor at Christmas."

Christmas has ever been recognized as a time for rejoicing and enjoying the good things of life as well as "merry tricks," by the little folks early in the morn examining the stockings hung up the night before for Santa Claus, and by older people the Christmas cheer and dinner,

"Lo! now is come our joyfullest feast!

Let every man be jolly;
Each room with ivy leaves is drest,
And every post with holly.
Now, all our neighbors' chimneys smoke,
And Christmas Blocks are burning;
Their ovens they with baked meats choke,
And all their stoves are turning,
Without the doore let Sorrow lie,
And if for cold it hap to die,
We'll bury't in a Christmas pye,
And evermore be merry."

Then comes the sports and fun and frolic like they were when

"England was merry England, when
Old Christmas brought his sports again.
'Twas Christmas broached the mightiest ale;
'Twas Christmas told the merriest tale;
A Christmas gambol oft could cheer
The poor man's heart through half the year."

Let us not forget that it is emphatically the day of "Peace on earth and good will to man," or as G. W. Curtis so eloquently says in Harper's Magazine, "it is the day of days which declares the universal human consciousness that peace on earth comes *only from good will to men*"

In closing the monthly chats for the year, will each dear reader allow me to pray in all sincerity,

"Oh! may the Christmas happy be,
And naught but joy appear,
Is now the wish I send to thee,
And all I love most dear.

Now Christmas comes with hearty cheer,
May kindly thoughts go round,
And bring to you a glad New Year
With peace and plenty crowned.

Sure Christmas is a happy time
In spite of wintry weather.

For laugh, and song, and jest go round
 When dear friends meet together:
 And hearts are warm, and eyes beam bright,
 In ruddy glow of Christmas night."

WE take pleasure in having procured the following lines expressive of a fond daughter's thoughts on the 80th birth day of her father, Col. Howard, of Winthrop, Me., who has been a warm friend of ours for over half a century, and we trust his life and unimpaired health may continue for many years.—W.

TO MY FATHER.

ON HIS EIGHTIETH BIRTHDAY.

By Abbie C. Howard.

This morn as I awoke from sleep,
 Thoughts filled my soul, both sad and sweet;
 A birthday in our home appears,
 My father's reached his eighty years.

O, eighty years, how time does tell,
 And yet how brief does seem the spell;
 You have journ'd in this world so fair,
 Watched, by the Shepherd's tender care.

You have had a share of joys replete,
 Also the bitter with the sweet;
 And yet through many hopes and fears,
 The heart is light for eighty years.

'Tis true, the form is bent and slow,
 More feeble do the footsteps grow;
 But through the mists, are seen no tears,
 The sun shines bright for eighty years.

God grant unnumbered blessings shed,
 On this devoted parent's head;
 As sorrow's cloud, all disappears,
 Leave bright the rays for eighty years.

Winthrop, Aug. 13, 1881.

A NEW MEAT CHOPPER:—We received for trial a new Meat Chopper, from the "Enterprize Manufacturing Company of Philadelphia, Pa.," and having seen so many meat-choppers during the last thirty years, we did not at first place much confidence in it as being superior to all others, but we gave it a fair trial and had it tested by those who have had much practical experience with such house-hold conveniences. We found it all that is claimed for it in their advertisement in this number of the FARMER. It is for its low price, a very superior and handy article that should be in every kitchen. We heartily commend it to all house-keepers as the simplest and best meat chopper within our knowledge.

Editorial Notes of a Northern Tour.

MAINE STATE FAIR AT LEWISTON.

The consolidated exhibition of the Maine State Agricultural Society, the State Pomological Society and the Androscoggin county Society was inaugurated at Lewiston on Tuesday, the 18th of September.

On reaching the grounds I met several acquaintances and was introduced to the Hon. Rufus Prince of South Turner, president of the Society, and to several of the officers and managers of the Exhibition, all of whom seemed to be in good spirits, full of energy and on the lookout to see that the wants of all visitors should be cared for. In beginning my examination I was greatly surprised to see such a crowd of people at such a small town of not much over 15,000 inhabitants. The various exhibits in every department were numerous and deserving public attention. Every interest of the farmer and mechanic, and every taste of all classes seemed to have been catered to and unusual inducement held out to sight-seers of all ages of both sexes, to attract their presence. I can give but a glance at this grand exhibition, and do so that other State Societies may take notice and draw therefrom inferences that in the future may be of great service to them.

The machinery exhibited was wonderful consisting of every article used on the farm, showing what an amount of interest the farmers of Maine take in labor-saving implements. Light two horse reapers seem to be very popular in many of the counties especially on the Kennebec. The manure spreaders, which spread as well as pulverize are coming into general use by Maine farmers. The display of fine fruits was surprising, considering the drought which has prevailed this year in the North, and when too it is the "off year" for apples. The Baldwin and Gravenstein seemed the popular apples grown for export. A large pagoda like structure handsomely decorated,

risers on the right front of the hall and catches everybody's eye. It is the exhibit of Oswald, Armstrong & Co., dry goods. A part of it is a Haskell silk loom in motion. Numerous other merchants in Lewiston and elsewhere have show-cases full of handsome goods, as usual. There are tempting displays of confectionary and crackers. Organs and pianos are shining and melodious. Rugs and carpets hang over the galleries. In room No. 16, are the sewing machine men, and their machines. The picturesque Shaker maidens, with their wares make themselves at home. There was also a fine show of vegetables. It was stated that one farmer in Aroostook raises 50,000 bushels of potatoes yearly, and uses a potatoe planter and digger to enable him to do it at comparatively small cost of labor in planting and saving his crop. Another startling fact we learned that last year the farmers of Maine invested \$1,000,000 in improved machines for the farm, independent of the large amount expended for dairy machinery and other miscellaneous machines.

The house-hold department was excellent and the articles were very fine and as numerous as diversified, embracing all sorts of needle-work, kitchen work, higher branches of art, superior cheese, butter and first-class dairying. Honey and bees along with a large collection of apiarian implements, forming a most interesting exhibition in that line.

The Entire Stock show was a great success, in numbers and varieties of breeds, and nearly every exhibit was an excellent specimen. Horses, mares and colts of the various breeds, hogs in great variety, splendid sheep,—the Merino in the ascendant were here in admirable forms. Jerseys seemed to have the call, though there were many noble specimens of Hereford's, Short Horns and other breeds. The imported black polled or Angus cattle of Messrs Burleigh & Bodwell of Vassalboro at-

tracted much attention.

Amongst the 1,100 head of horses and cattle on the ground, the working oxen was most interesting to me, and here I will say that I do not think there is any State in the Union that can produce such teams of oxen and steers as the State of Maine. The committee tested the strength of each yoke separately. According to the different ages and sizes, it was found that single yokes moved from 2 to 5 tons at a pull. There were various grade steers, but the Hereford's seemed to largely predominate. These trials of strength and training are among the chief attractions at Northern Fairs and it would be well if our Southern people paid more attention to these useful farm animals as working stock.

Poultry was there too in quantities, the largest display being Plymouth Rocks, geese and ducks, &c., making a nice show of farm-yard denizens.

This meeting of the State Society was to me very remarkable for its huge dimensions, the number of exhibits of all descriptions, and the great crowd of people attending. From 10,000 to 30,000 people each day being upon the ground, with an aggregate receipt of funds for the four days of over \$20,000. These facts confirmed my impressions formed while travelling over the State, that agriculture was on the increase daily in the most northern portion of the Union, that both State and individual prosperity was rapidly expanding, and that the whole was of late years produced by greater attention to agricultural pursuits, greater enlightenment of the masses, and more advantage taken of the opportunity offered by machinery to enable one man to do the work of five men or more per day. Everywhere we went the barns were bursting and not sufficient to hold the great northern product—hay, and the earth labored with the burthen of the potatoe crop and other products. Much of all the production has been due, doubtless

to the rivalry and the personal examination of exhibits, elicited by agricultural Fairs, properly conducted. This reflection should sink deep into the minds and hearts of all readers who really have a fellow-ship in whatever concerns the well being of the husbandman. Any such person would have his heart cheered by a visit to the Maine Fairs.

To successfully manage an Exhibition of this kind, there must be a head capable of directing its affairs. While observing the management of the president, Mr. Prince, whom I had never before met, I was reminded of a scene that occurred about 50 years ago, in the Senate of Maine, when his father was a member and whose name was mentioned for President of that body. The politicians and professional men were astonished that one should be named for such an office, who was "*only a farmer.*" But in spite of these professionals, the farmer was elected, and it was admitted that the Senate never had before a man better fitted for the duties of that office. In the son I thought I saw truly "a worthy son of a worthy sire," one well fitted to preside over an Agricultural Society or a Senate.

At the risk of being tedious, I must notice one very commendable feature of this Society, believing it deserves more attention than is generally given. It is, the arrangement to feed visitors at the Fair.

Every person can appreciate a good, warm dinner and especially if the surroundings are clean and comfortable. Here we found from 20 to 30 tents, sufficient to dine 1,000 persons at one sitting, with clean floors, good seats, and tables covered with white cloths, and groaning under the weight of well-cooked, beef, mutton, pork and beans, hot vegetables, also pies, puddings, &c., with hot tea and coffee, besides any desired quantity of nice, rich milk. To my mind this adds much to the comfort and pleasure of visitors and to the coffers of the Association. Therefore I would suggest

that which would add to the receipts of such Societies and to the comfort of visitors, is in a word, that Agricultural Societies should offer a good premium to the keeper of that restaurant, which showed the greatest neatness and furnished at all times the most satisfactory meals, at reasonable rates during the entire meeting.
W.

SEVERAL valued communications are necessarily postponed from want of room in this number, but will appear in January.

Maryland Improved Live Stock Breeders Association.

The quarterly meeting was held on the 14th ultimo, in Baltimore city. The chief business was the reception of the reports from committees appointed to suggest the frame of laws for sheep protection and to prevent the spread of contagious diseases among the domestic animals of the State. Mr. R. E. Dennis of Howard county, reported for a general law, the sheep and dog law prepared for Montgomery county at the last session of the Legislature, and which would have become a local law, but the house refused to concur with the senate.

Mr. W. H. Moore, chairman of the committee, reported the draft of a bill of a stringent character for the suppression of contagious diseases among live stock. This was referred back to the committee for some alterations, and will be considered at the February meeting and then sent to the Legislature for its action.

Dr. Ward delivered a very interesting address upon the engrossing subject which this Society has very properly taken in hand, and with their united efforts will no doubt lead to the increased prosperity of the stock breeders in this and other States. This Society is young but full of energy and determination to aid the general stock breeder and place Maryland in the front rank of breeding improved live-stock of all classes and breeds.

The Highest Authority.

UPON A SUBJECT OF VITAL INTEREST,
EFFECTING THE WELFARE OF ALL.

The following remarkable letter from one of the leading and best known scientific writers of the present day is specially significant, and should be of unusual value to all readers who desire to keep pace with the march of modern discoveries and events:

"A general demand for reformation is one of the most distinctive characteristics of the nineteenth century. The common people, as well as the more enlightend and refined, cry out with no uncertain voice to be emancipated from the slavery of conservatism and superstition which has held the masses in gross ignorance during a large portion of the world's history, and in the time of the 'Dark Ages' came near obliterating the last glimmer of truth. Dogmatic assertions and blind empiricism are losing caste among all classes of all countries. People are beginning to think for themselves, and to regard authority much less than argument. Men and women are no longer willing that a few individuals should dictate to them what must be their sentiments and opinions. They claim the right to solve for themselves the great questions of the day and demand that the general good of humanity shall be respected. As the result of this general awakening, we see, on every hand, unmistakable evidences of reformatory action. People who, a few years ago, endured suffering the most intense in the name of duty, now realize the utter foolishness of such a course. Men who were under the bondage of bigoted advisers allowed their health to depart; suffered their constitutions to become undermined and finally died as martyrs to a false system of treatment. There are millions of people filling untimely graves who might have lived to a green old age had their original troubles been taken in time or properly treated. There are thousands of people to-day, thoughtlessly enduring the first symptoms of some serious malady and without the slightest realization of the danger that is before them. They have occasional headaches; a lack of appetite one day and a ravenous one the next, or an unaccountable feeling of weariness, sometimes accompanied by nausea and at-

tribute all those troubles to the old idea of a slight cold or malaria. It is high time that people awoke to a knowledge of the seriousness of these matters and emancipated themselves from the professional bigotry which controls them. When this is done and when all classes of physicians become liberal enough to exclude all dogmas, save that it is their duty to cure disease as quickly, and as safely as possible; to maintain no other position than that of truth honestly ascertained, and to endorse and recommend any remedy that has been found useful, no matter what its origin, there will be no more quarrelling among the doctors, while there will be great rejoicing throughout the world."

"I am well aware of the censure that will be meted out to me for writing this letter but I feel that I cannot be true to my honest convictions unless I extend a helping hand and endorse all that I know to be good. The extended publications for the past few years, and graphic descriptions of different diseases of the kidneys and liver have awakened the medical profession to the fact that these diseases are greatly increasing. The treatment of the doctors has been largely experimental and many of their patients have died while they were casting about for a remedy to cure them."

"It is now over two years since my attention was first called to the use of a most wonderful preparation in the treatment of Bright's disease of the kidneys. Patients had frequently asked me about the remedy and I had heard of remarkable cures effected by it, but like many others I hesitated to recommend its use. A personal friend of mine had been in poor health for some time and his application for insurance on his life had been rejected on account of Bright's disease. Chemical and microscopical examinations of his urine revealed the presence of large quantities of albumen and granular tube casts, which confirmed the correctness of the diagnosis. After trying all the usual remedies, I directed him to use this preparation and was greatly surprised to observe a decided improvement within a month, and within four months, no tube casts could be discovered. At that time there was present only a trace of albumen, and he felt, as he expressed it, 'perfectly well,' and all through the influence of Warner's Safe Cure, the remedy he used."

"After this I prescribed this medicine in full doses in both acute and chronic nephritis, (Bright's disease) and with the most satisfactory results. My observations were neither small in number nor hastily made. They extended over several months and embraced a large number of cases which have proved so satisfactory to my mind, that I would earnestly urge upon my professional brethren the importance of giving a fair and patient trial to Warner's Safe Cure. In a large class of ailments where blood is obviously in an unhealthy state, especially where glandular engorgements and inflammatory eruptions exist, indeed in many of those forms of chronic indisposition in which there is no evidence of organic mischief, but where the general health is depleted, the face sallow, the urine colored, constituting the condition in which the patient is said to be 'billious,' the advantage gained by the use of this remedy is remarkable. In Bright's disease it seems to act as a solvent of albumen; to soothe and heal the inflamed membranes; to wash out the epithelial debris which blocks up the *tubuli uriniferi*, and to prevent a destructive metamorphosis of tissue."

"Belonging as I do to a branch of the profession that believes that no one school of medicine knows all the truth regarding the treatment of disease, and being independent enough to select any remedy that will relieve my patients, without reference to the source from whence it comes, I am glad to acknowledge and commend the merits of this remedy thus frankly.

Respectfully yours,

R. A. GUNN, MD.

Dean and Professor of Surgery, United States Medical College of New York; editor of *Medical Tribune*; Author of Gunn's New and Improved Hand-Book of Hygiene and Domestic Medicine, etc., etc.

The Contemplated Exposition Building for Baltimore.

We are glad to see the present energetic movement for an Exposition Building in this city, and glad to see that it has been placed in the hands of the right sort of men, who will beyond a doubt, make the move a success. Long since we saw the absolute need of such a building, suited to the

rapidly growing wants of so large and prosperous a city, and suggested such a movement a year ago in our Journal, if that movement was of the right kind, by which all classes of people could if they chose become interested as contributors or stock-holders. Under the present able board of trustees we can discover nothing short of success. There is one danger we beg leave to suggest, and that is, there may be too much desire to make the enterprise a large dividend paying concern to the stock-holders at first, and all the time. Now, it seems to us that this should be only the secondary or possible resultant consideration. The first object should be the convenience and comfort of visitors, so that its attractions will draw people from all parts of the world, which would swell the receipts so much that the stock-holders would then receive a fair dividend. But the chief remuneration we think that the stock-holders should look to would be derived from the increased value of real estate—the impetus given to trade, and the introduction of live manufacturers of all kinds, which would increase population and thereby enhance the sales of all things needed by consumers. In this way the whole city would be improved, and merchants and capitalists who may become stock-holders in this Association, would reap larger dividends than if the building was allowed to be limited in exhibition space by encroachments of stores and shops, especially on the first floor, which should be devoted, or at least the larger portion, to machinery where alone very heavy machines and extra large engines could be placed, and not on the second floor. We have not seen the plans submitted by architects, but gather from what we read in the daily papers, the designs contemplate, the lower floor for stores, and the machinery to be placed on the second story. The suggestion we throw out is in accord with the plans pursued at those grand Exposition buildings we have seen

at the Philadelphia centennial, at Atlanta, Boston, Chicago, and other enterprising cities that have found it necessary to their interest to have such buildings commensurate with their growing trade and population.

For the Maryland Farmer.

Stock Notes,

BY J. W. DARROW.

A well-known principle in stock-breeding, is that "like begets like" but in atavism or "breeding back" it would appear that the principle does not hold good. Let us see, by gradual change in characteristics, or by the more powerful ancestors of a different character, that of the ancestor is for a time lost sight of, though it may appear to have been entirely obliterated. All the time there are in existence two elements, the stronger one making itself known in the various characteristics of an animal, the weaker running along as an under-current until, in time, it either grows in strength or the other weakens, when the former, and now apparently lost, ancestral character re-asserts itself. Thus, the rule that like produces like is not set aside, but proven true, only, it may be, several generations may intervene between any two of its appearances. This may seem mere speculation but if carefully considered in all its various phases it will be found to explain somewhat the subject of atavism.

WATER FOR STOCK.

Not only is a good water-supply on the farm a convenience but it is absolutely a necessity and especially so in winter. Cows and horses that are kept largely on dry hay need much water to aid digestion. The blood is three-fourths water and when water is wanting assimilation is impaired and cows shrink in their milk and fattening stock in weight. We object to the plan of giving stock water but once a day in winter, as some do. They will over-load themselves with cold water and injure their health. They should have access to it all the time when in the yard and they will not drink too much; they are good judges of their own needs. Any farmer who has a spring in a sufficient elevation should have the water conducted under a shed or better

still, into the cow-barn where in stormy weather the stock may drink without going out of doors. A writer recommends that a trough be arranged beneath the manger, the bottom of the manger being the cover to the trough. When desired, remove the stuff from the manger, lift the cover and let the stock drink. A little money expended in providing good water privileges for the dumb animals, is well used.

PIGS IN WINTER.

Of all pitiable objects about the farm in winter, a half-fed pig is the worst. The rule should be in small farms where hog-raising is not the main business. "Keep but few pigs over winter and keep them well." The fall pigs need to be kept growing rapidly through the winter, but unless they have a separate pen the chances are that the older ones will get the most of the feed. Such pigs kept in good condition through the winter may be turned into a clover pasture in early summer, and they will make a wonderful growth and may be turned off in October and make good pork with a little corn given a few weeks before killing. Nothing is made in half-feeding any stock, especially swine.
Chatham, N. Y.

THE POULTRY AND PIGEON EXHIBITION.—The annual exhibition of the Baltimore Poultry and Pigeon Club, which will be held during the month of January, 1884, is attracting considerable attention, and there is every probability of a large exhibit from the New York Poultry Club.

The Club will offer no cash premiums this year, so that the exhibition will be a simple competition and exhibit of the best breeds and stocks from all sources.

All information may be had of either of the Secretaries, Messrs. Thos. W. Hooper or H. F. Whitman, Baltimore, Md.

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Farmers!! Attention!!

Such is the happy change of late that has come over the farmers for reading Agricultural Works and Periodicals, that they may obtain intellectual enjoyment at the same time gain knowledge from the experience of their fellow farmers as to the best culture of farm products and the steady improvement in the fertility of the soil, we have concluded to club with several leading Literary and Agricultural Journals for the next year, so that our readers may have the opportunity to obtain at the lowest possible cost the benefit of other Journals with our own, hence we ask special attention to the following:

The Breeders Weekly Gazette, Chicago, Ill., price \$3.00; with Maryland Farmer, \$3.25.

Harper's Magazine, price \$4.00: with Maryland Farmer, \$4.25.

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Harper's Bazaar, price \$4.00; with Maryland Farmer, \$4.25.

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American Angler, price \$3.00; with Maryland Farmer, \$3.25.

Live Stock Monthly, Portland, Me., price \$1.50; with Maryland Farmer, \$2.00.

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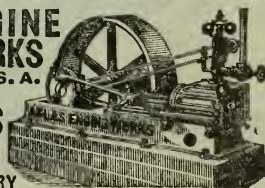
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FIELD AND GARDEN SEEDS

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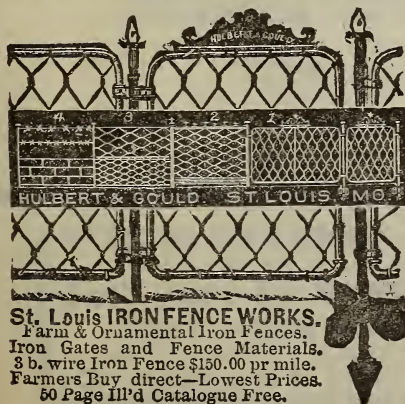
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